packaging Vernors



Nominated for packaging's Hall of Fame. Story on Page 126

April 1949

TRIPLE YOUR GLUE COSTS

"Attack is the best defense"

Napoleon

Meet rising competition with a better quality glue that will speed up production... reduce assembly line rejects... provide better protection during shipping and rehandling... present a more attractive product at the final point of sale.

Remember this: Low cost producers regard glue as a service—not a commodity—that definitely affects production and operating costs.

Here's an actual example: A field survey shows that container flaps that become unsealed during shipping cause 30.8% of all damage considered to be under the shippers' control. Think of what this adds to operating, labor and material costs!

The answer? National's multiple service case sealing glue that costs three times as much as ordinary glue.

SAFE-LOK seals with a courber, more durable bond that is imprecised by temperature and humidity variations or the thinging impacts that or inarily cause cases to open in transit and partition breakage and the consequent loss of cartomers' good will or business.

SAFE-LOK requires less compression time...bonds a wider variety of container surfaces and stocks...gives greater effective mileage...and provides the higher sealing speeds needed to handle multiple feed labeling units.

SAFE-LOK — a light colored 'RESYN'® emulsion adhesive that comes ready for use — is now being used by the most aggressively sales-minded and cost-conscious companies in the country. Address: 270 Madison Ave., New York 16; 3641 So. Washtenaw Ave., Chicago 32; 735 Battery St., SAN FRANCISCO 11, and other principal cities. In CANADA: Meredith, Simmons & Co., Ltd., Toronto and Montreal. In ENGLAND: National Adhesives, Ltd., Slough.



rom a pane David. Courses of the Metropolito Museum of Art.





PHOENIX METAL CAP CO. * Metal Caps for Glass Packages * Chicago 8, Brooklyn 18

Modein packaging



Vol. 22 No. 8 April 1949

GENERAL

The case for the set-up box It has some practical advantages; tion improvements steadily lower i	produc- ts cost.
National Packaging Show Details of the 1949 AMA Exposit Conference, May 10 to 13, Atlantic Ci	118 ion and ty.
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Dutch Boy Paints No. 4 in our Hall of Fame cover se one of America's most famous tradem	
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Courts' rebuffs raise question of enforcibility

Speeds penicillin packaging 5 to 7 times.

Machine makes and fills single-use packets.

Package perk-up for utilitarian product.

Bag-color program increases sales 1,800%.

mechanize multiple wholesale pack.

Accumulator puts cartons within cartons to

150

160

of law. By WALLACE F. JANSSEN.

Sterile-filling machine

New formed unit pack

Solder, too, must sell

Color boost for candy

Master cartoner

Packaging Pageant

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Spontaneous expressions of approval like Mr. Ekelmann's are frequent and always gratifying reminders to us...that Redington's long-established policy of offering *more for your cartoning dollar* continues to benefit our customers. Write us soon, so *you*, too, can begin to benefit.

REDINGTON TYPE 23: OUTSTANDING FEATURES INCLUDE . . .

Instant Adjustability to different sizes by simply moving numbered parts to proper marking. . . continuous loading mechanism. . .skip cartoning. . .vari-speed drive. . .safety throw-out. . .and many other advantages.

10¢, 25¢ and 50¢ LYONS SIZES CARTONED SPEEDLY ON ONE REDINGTON!

Filled and closed tubes are placed in pockets of intake conveyor and cartons in collapsed form are stacked in a magazine. Machine feeds a carton from magazine, expands it, inserts the tube and closes carton by tucking in the end flaps.

Vari-speed drive permits operation between 70 and 130 per minute, but machine is capable of considerably higher speed.

F. B. REDINGTON CO. (Est. 1897) 110-112 S. SANGAMON ST., CHICAGO 7, ILL.



AUTOMATIC CARTONING . WRAPPING . SPECIAL PACKAGING



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A YEAR FOR PROGRESS

Time was—within easy memory—when the Western World looked across the Atlantic to learn what was new as a result of scientific and industrial research. American business men, eager to improve product or service, traveled overseas, visiting plants that would open their doors to visitors and attending such gatherings as the Leipzig Fair and the Paris Exposition.

Today Europe looks to us. Visitors and mail requests from abroad manifest an insatiable desire to learn about American packaging machinery, materials and methods. They express amazement at the amount of research being conducted here, at the practical applications resulting from that research and at our willingness to share.

Without a doubt, America's position of leadership in packaging is due in part to the interchange of information that seems to characterize our industry, but more particularly it is the result of the national show, devoted entirely to packaging, that this year has its 18th renewal.

There is no better way to obtain packaging information. To be sure, this issue of Modern Packaging contains a comprehensive preview of the more important new developments that will be shown and the Conference proceedings will be reported in the June issue; but however good that may be, it is no substitute for personal observation.

Research and development work suffered a halt during the war years and for several years following the war only imperative requirements were met. Now, however, research is bearing fruit in numberless new machines and materials which the visitor to Atlantic City may see for himself.



The Editors



SELF SELLING . . . SAFE KEEPING



Brilliant, unit packages of Dobeckmun METALAM* catch the eye of casual shoppers. Clear, attractive, color-printing on the film and foil laminated combination shows brand name and tells product story. PRESTO! Another sale is made.

They repeat, too, because they're easy to use and keep safely in pocket or at home. Leak-proof, moisture-vapor-proof, airtight METALAM affords exceptional, long-time protection for even highly "thirsty" contents—retains the high quality you pack into your products.

tents—retains the high quality you pack into your products.

Ask about METALAM—and about our many other kinds of automatically packed, fast selling, safe keeping packages, processed from films, foils or other materials best suited to your products and your specific selling methods. The Dobeckmun Company, Cleveland 1, Ohio. West Coast Division, Berkeley 2, California.

Produced under Ivers-Lee Patents Nos. 2121988, 2230849, 2125321.

Branches: Atlanta, Boston, Chicago, Cincinnati Los Angeles, New York Philadelphia, Portland, St. Louis, St. Paul and Seattle, Representatives everywhere.



MAKE TRANSPARENT PLASTIC BOXES THE July

It's easy as A-B-C TYPICAL BEADED

For each of the basic steps in making rigid transparent boxes of any size or type, there's a special Taber machine. Taber machines provide the uniformity, high speed capacity and low operating cost quality box fabrication demands.

Shown below are typical Taber set-ups for making rectangular boxes from thermoplastic sheet. With modifications in blanking, and in beading and creasing, box covers and boxes with other dimensions can be made.

EDGE BOX





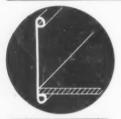
STEP A

Bead strip of transparent material to make sides of



Taber DUPLEX THERMOBEADER

Accommodates die-cut blanks or continuous rolls of thermoplastic sheet material from .005" to .020" in thickness. Beads from 500 to 1000 inches per minute, depending upon style of bead and thickness of material, Model No. 128-1 for single edge beading (delivery, 3 weeks), \$2,250 Model No. 128-2 for double edge beading, \$5,500



TYPICAL FOLDED



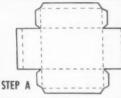
Bend sides to 90° at 4 positions. Seal corner tab and insert cardboard bottom.



Taber 90° THERMOCREASER

Makes accurate 90° folds as fast as the operator can locate the material and push the treadle when working material up to .010" thick. Slightly longer heating time required for heavier materials. Equipped with metal die and blade 31" long. Model No. 123-1 (delivery, 2 weeks) \$675





Make 180° folds on all four edges to provide rigid, non-snagging edges.



Taber 180° THERMOFOLDER

Up to 700 "U" type folds can be made on this machine per hour. Folds do not tear, crack or open up since they are molded as they are folded. Automatically controlled cycling. Tightness of fold is adjustable. Model No. 103-5 (delivery, 2 weeks), \$895





STEP B

Form bottom and sides by folding to 90°. Then seal corner tabs to complete box.



AUXILIARY 90° BLADE

Auxiliary blades may be cut to length to fit between sides of box for folding the end. This results in very accurate corner folds. The long blade can be used for folding the long sides and the tabs of the box and for other

Prices F.O.B. Factory, North Tonawanda, N.Y. The Taber Instrument Corp. reserves the right to change specifications, designs or prices without incurring obligation.

119 Goundry Street, North Tongwanda, N. Y

You can find out much more about the advantages and adjust and Thermoteaser and adjust and Thermoteaser. ou can find out much more about the advantages and adjust and the advantages and adjust adjusted to the advantages and adjust and SPECIAL BROCHURES FREE

You can feel the sales appeal that GEON latex gives...



... to gift box and gift bag covers, cosmetic packages, trims

POR sales appeal, the highly practical material above is hard to beat. It's a non-bleeding and waterresistant coated paper-thanks to its Geon latex coating. It can be used in many ways-for packages, covers, liners . . . to name a few.

Here again Geon materials did an "improvement" job. That's because Geon is so versatile. Products made with it resist heat, cold, aging, weather

and wear. They also resist water, oil, grease, acids and alkalies. Colors may be brilliant or delicate as desired.

Geon materials are used as coatings, calendered or cast sheet and film. The typical example shown here may give you ideas for package improvements, or in developing new uses. We make no finished products from any of our raw materials. But we are always glad to give you helpful, technical advice. For information, please write Dept. S-3, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.



B. F. Goodrich Chemical Company THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers



The new specially designed nozzle of the WIRZ grease-tip tube prevents grease "backfiring," cuts lubricant losses. Tapered and long enough for practically every type outboard motor, the nozzle fits snugly into lower unit diameter openings from 19/64" to 13/32"... reduces the inconveniences of the lubricating job. WIRZ grease-tip tube has met instant approval everywhere.

Among the leading manufacturers who have adopted the new WIRZ grease-tip tube are Texaco, Dixon, Evinrude, Johnson, Socony-Vacuum, Whiz, etc.

If you want to increase the speed, economy and convenience of your product-in-use, it will pay you to

try WIRZ collapsible metal tubes. The grease-tip tube is one of many practical tube designs for a specific purpose produced by WIRZ in the consumer and industrial fields since WIRZ made the first tubes in America back in 1872. Write today for samples and recommendations.



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Export Division—755 Drexel Bldg... Philadelphia 6, Pa.

Collapsible Metal Tubes . Lacquer Linings . Wax Linings . Westite Closures . Soft Metal Tubing . Household Can Spouts . Applicator Pipes . Compression Molding

Rockwell*

UTOMATIC CARTONER

See our Exhibit Booth 704

18th National Packaging Exposition Atlantic City, N.J. May 10-13, 1949

View of loading section showing three cans of deep frozen orange juice concentrate being transferred from conveyor lines to moving trays on machine bed, then being inserted into mechanically erected cartons—all in continuous motion.



This machine is coasting ...

WHILE CARTONING 300 Cans Per Minute



hnouncemen IMPORTANT · CHANGE OF NAME . CHANGE OF LOCATION

The A. H. Ross Co., Inc., a subsidiary of Rockwell Manufacturing Company is now

ROCKWELL PACKAGING MACHINES,

Subsidiary of Rockwell Manufacturing Company

Sales offices and manufacturing operations have been moved from Dayton, Ohio to enlarged modern facilities at

HUDSON, N. Y.

Effective immediately please address all correspondence to Rockwell Packaging Machines, Inc., Subsidiary of Rockwell Manufacturing Company, Hudson, N.Y.

QUICK FROZEN ORANGE JUICE IN CONTINUOUS MOTION

24 hours a day Florida Citrus Canners Cooperative use a Rockwell* automatic cartoner to mechanically erect, load and tuck seal cartons containing three 6 oz. cans each of Birds Eye quick frozen orange juice concentrate. This machine consistently turns out over 100 cartons per minute while operating at a conservative speed.

If you are now cartoning cans or contemplate cartoning cans, either singly or in multiple packs, we have the machine that will do the job quickly, neatly and economically. Write for full details or use the handy coupon.

ROCKWELL PACKAGING MACHINES, INC.
Subsidiary of Rockwell Manufacturing Company Hudson, N. Y.
Gentlemen: Please send me full information on Rockwell automatic cartoners for packaging our products. We are sending samples Yes No. Single pack Multiple pack
COMPANY
STREET
CITY ZONE STATE
YOUR NAME POSITION

BOOTH 321-A



Be sure to visit booth 321-A to see very newest development in flexible packaging methods Stop Every visitor at the AMA Exposition is cordially invited at the AMA Exposition is cordially invited Stop Make booth 321-A a "must" on your list of things to do at the Exposition.

Sales Offices in Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Kansas City, St. Louis, Dallas, Detroit, Oakland.



TRAVER CORPORATION

366 W. ONTARIO ST., CHICAGO, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE

A PACKAGING PROBLEM that went up in smoke





YOUR PRODUCT

Sooner or later it had to happen—there was a demand for locomotive smoke. The A. C. Gilbert Company of New Haven, Connecticut, had a tough problem packaging the smoke fluid for their American Flyer toy train. Then just the right quantity for one use was encapsulated in a gelatin tube assuring complete protection against oxidation—and their problem literally went up in smoke.

Hermetic sealing is only one of the unusual advantages of the gelatin container. The famous Rotary Die Process produces accurate unit packages in a variety of shapes, sizes and colors which will lend individuality and appeal to most any product.

Rotary Die Process gelatin capsules have made history in the field of vitamins and medicinals. Their usefulness and sales appeal have been clearly demonstrated as containers for margarine coloring, food flavors, chicken soup, cigarette lighter fluid, bubble bath—and the list is constantly growing.

If the sales of your new product, or old one, would be increased by accurate unit measure, freedom from deterioration, distinctive appearance, and convenience, combined with up-to-the-minute styling-then-consider Rotary Die Process gelatin containers.

GELATIN PRODUCTS division

R. P. SCHERER CORPORATION

9425 GRINNELL AVENUE, DETROIT 13, MICHIGAN



Beautifully Protected ...

Light, air and damp wage insidious and constant attack upon the appearance and full, fresh flavour of perishable goods. Give your product the most efficient protection with Venesta Aluminium Foil and you will be certain it is Beautifully Protected.

In the Venesta Works at Silvertown, London, England, Foil is rolled and printed in the most appealing colours and designs. It is also laminated with supporting papers to pack and wrap goods in any part of the World.



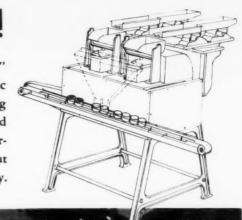


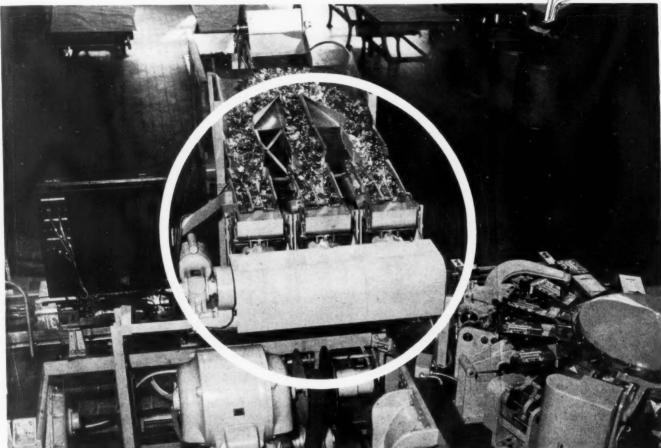
VENESTA LTD., VINTRY HOUSE, QUEEN STREET PLACE, LONDON, E.C.4. ENGLAND MAKERS OF VENESTA PLYWOOD AND PLYWOOD CONTAINERS, METAL FOILS AND COLLAPSIBLE TUBES, AND PLYMAX—THE METAL-FACED PLYWOOD

\$175-10D

FIRST PUBLIC DEMONSTRATION!

Wright's new Hy-Tra-Lec Automatic Weigher Model "M" will be unveiled at the Packaging Exposition in Atlantic City. Two machines will be shown in action—one weighing and filling candy, and the other weighing and filling wood screws. If you cannot attend the Show, write now for literature describing this latest model of the most talked-about improvement in weighing equipment of the 20th century.





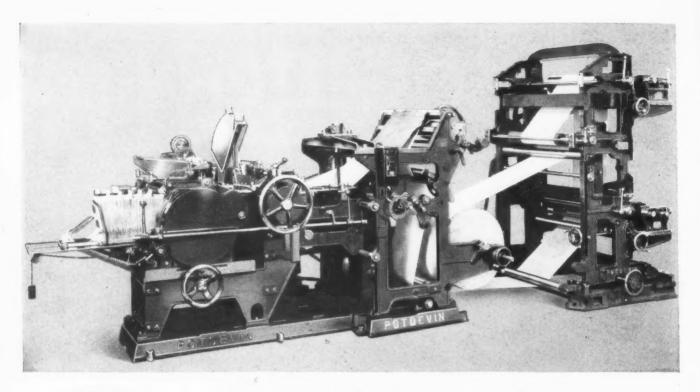
... don't be surprised

You probably have heard packaging experts talk about Wright's Hy-Tra-Lec Automatic Weighers. The principles incorporated in these machines—introduced in 1946—are new to packaging machinery. "Positive displacement" is utilized rather than beam or spring scales. Definitely, a marked technical departure from conventional weighing methods. And—as proven by over 100 installations in leading plants—a definite practical advance achieving greater accuracy at high speeds in net-weighing and filling operations for many products.

So don't be surprised at the large crowds which will surround Wright's exhibit at this year's Packaging Exposition in Atlantic City. Alert, economy minded

packagers want their products weighed and filled more accurately at high speeds. They want to see Hy-Tra-Lec. And they particularly want to see the new models which will be demonstrated publicly for the first time. Follow the crowd. Look to Wright.

MACHINERY COMPANY EST. 1893 DURHAM, NORTH CAROLINA SUBSIDIARY OF THE SPERRY CORPORATION



"Please Send Information on Paper Bag Machines".

Potdevin would have found this an easy query to answer a few years ago. In those days a piece of folded paper—a little paste—and you had a bag. Today paper bags have acquired a "new look" and bagmakers have become packaging specialists. Bags are as varied as women's fashions— each one tailored to its special purpose. Nowadays bags must sell, protect and carry merchandise while allowing for economical filling, closing, sealing—and convenient opening and reclosing.

Potdevin, working with bag manufacturers, has helped bring about this packaging revolution. "Please send information—" is no longer enough. Before we can give you an intelligent answer we must know whether you're planning to make sift proof flour and sugar bags, garment window bags, waxed bags, gayly printed notion bags, heat sealed cellophane cheese pouches, shopping bags, metal tied bags, multi-wall cement bags or bottle "carrier" bags. These are a few of the "made for a purpose" bags produced on Potdevin presses and bag machines.

Illustrated, a Potdevin bag machine linked to a three color web press. This vertical delivery machine makes flat specialty bags, sizes 2-9/16" x 4-7/8" to 12" x 12-1/2", and gusseted bags in comparable sizes. Maximum production is 800 bags a minute. Aniline press prints on kraft, sulphite, glassine and specialty papers.

POTDEVIN

MACHINE CO.

1244—38th Street Brooklyn 18, New York

See you at the Packaging Exposition, Booth 605. Or visit us at the Dennis Hotel, Atlantic City, May 9th to 13th.



PUTS MOTION INTO YOUR PACKAGE

FOIL CARTONS speed up your sales!

Putting your product in Foil Cartons means putting motion into your package. Foil is a moving display. See for yourself how the changing pattern of reflected highlights and shadows on a foil box imparts a strong feeling of movement. Walk past a foil package and see how this play of light and shadow on the glittering surface animates the package . . . how it draws the eye and holds attention. Animation, that invaluable aid in selling merchandise fast, may be yours if you put your product into Foil Cartons. Send us

your present carton for suggestions.



UNITED BOARD AND CARTON

156 Solar Street, Syracuse 1, New York

Board Mills:

Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

Carton Plants:

Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

The Jacoby Formula

Re-Use Remembrance Fickaging All in One Place

Now! Enhance your product with JACOBY artist designed re-use remembrance packaging that sells and resells! Here is packaging that lives long after the product has been used. Here is packaging with utilitarian value that keeps your name ever in sight — ever in use!



Whether it be candy or liquor, cosmetics or shoes, hats or bras . . . your package remains to be used as a luggage piece, a stud or jewel container, a knitting box — for a hundred and one day-in, day-out convenient purposes. Speedily, economically your coordinated packaging is created all in one place — from the original design to the completed package. And your package is JACOBY designed with an eye toward sales promotional values, toward the goal of re-use remembrance packaging. . . . Call, write or wire today.

"Quality-Like Character-Endures"

Jacoby Designed

Box Promotions

for

- Candy
- Cosmetics
- Liquors
- Shoes
- Gift Boxes
- · Hats
- Gift Towel Sets
- . Dolls and Toys
- Food
 Specialties
- Foundation
 Garments
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"sales promotional packaging since 1932"

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POLYCH A PRINCIPLE A PALLAS A LOS ANGLES



AKES 4



OKEN, KU MILY

OKS IN INUTES

AKES 4 TO 6 SERVINGS



OLIDS, PROTEIN VEGETABLE OL WHEAT STARCH

OKEN

COOKS IN 7 MINUTES



WAKES 4 TO 6 SERVINGS

1/4 lb. mushrooms, cut in small pieces
1/3 cup minced green pepper in
1 tabs. hot for
1 tubs worler
2 cups worler
1 to thin white sauce
1/3 teaspoon curry powder
1 pockage, LIPTON MOODLE SOUP
2/4 soft and pepper

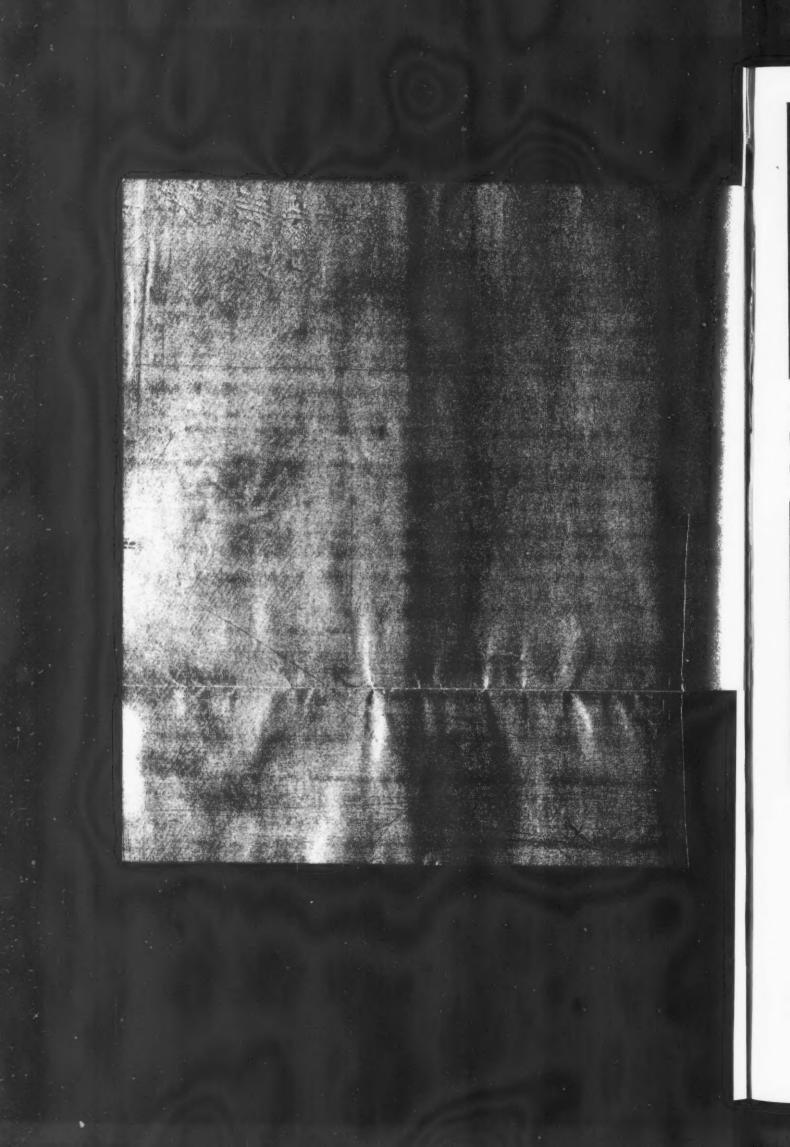
4. Cook 7 minutes and serve. 3. Stir in ni vitē.

S. Bring to a boil.....

1. Sauté

MOODLE SOUP

eu bebber bbed





Dehydrated soups in today's self-service markets are an outstanding example of the need for utmost protection plus sales-building display. Reynolds Aluminum is unequaled on both counts...maximum protection against moisture, air, light, odors...maximum attraction of rich colors on bright metal. Let us put this sell-on-sight magic in your product...with complete protective packages or labels of Reynolds Aluminum.

Reynolds Metals Company, Richmond 19, Virginia. See our display at the National Packaging Exposition. Booths 416, 417.

Raise this tip-on and see this Reynolds embossed Pli-Foil envelope stock in actual use on Lipton Noodle Soup



REYNOLDS ALUMINUM



how to fill powders..FAST, CHEAPLY, CLEAN and TIGHT

ANSWER: "AUGER-VAC"

a thing of the past! It's the skillful combination of auger and vacuum that does the job... does it well. The Auger-Vac turns out from 10 to 20 units a minute—each container filled tight to the exact amount required. Powdered milk, cocoa—in fact, any powder filling job is an economical and efficient operation—because of Auger-Vac, another fine product of Stokes and Smith.

FOR HIGHER PRODUCTION REQUIREMENTS, AUTOMATIC MACHINES CAN BE SUPPLIED

STOKE SES MITH @

PACKAGING MACHINERY
(A wholly owned)

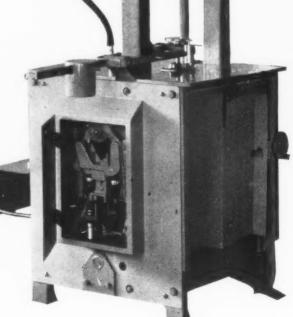
Subsidiary of Food Machinery and Chemical Corporation

Frankford, Philadelphia 24, U. S. A.

See us at Booth 613
A.M.A. National
Packaging Exposition
Atlantic City, May 10-13









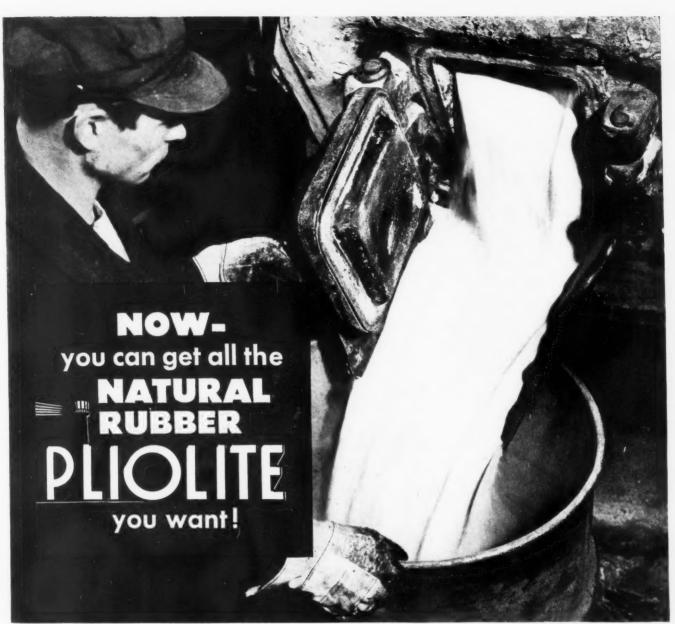


makes a rich impression

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AF



Milled Pliolite has high solubility, insuring excellent dispersion.

WITH the increased availability of highest grade low-protein-content natural rubber, you can now get all the NATURAL RUBBER PLIOLITE you need. For this use-proved cyclized derivative of rubber is back again in volume production. It's available in two forms—unmilled powder or milled resin #50.

In powder form, NATURAL RUBBER PLIOLITE is best used for specialized rubber reinforcing or in

combination with waxes for hot melt-dip coatings.

Milled, it takes on excellent solubility characteristics which make it highly adaptable for formulation into greaseproof paper coatings, fast drying inks, baking primers and corrosion-resistant finishes for steel, wood and masonry using only alphatic solvents. For samples and full details, write Goodyear, Chemical Division, Akron 16, Ohio.

We think you'll like "THE GREATEST STORY EVER TOLD"-Every Sunday-ABC Network

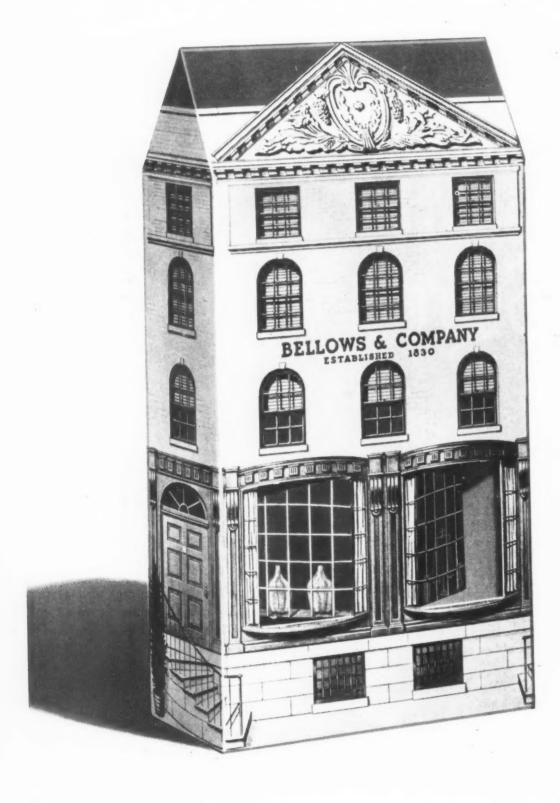
USE PROVED
Products

GOODFYEAR

Pliolite-T.M. The Goodsear Tire & Rubber Company

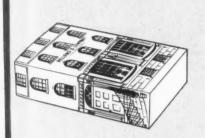
Another Example

OF GARDNER-RICHARDSON PACKAGING INGENUITY.



it's carrie

The Two-Bottle Display House FOR BELLOWS & COMPANY



Roof folds flat for wrapping, forming a neat, square package. No bottle necks show when it's carried home.



Gable-roofed cartons make attractive displays. Punched windows swing in to act as dividers for the two bottles, whose labels are visible in window openings.

IT GOT UP-FRONT DISPLAY IN PACKAGE GOODS STORES; STIMULATED TWO-BOTTLE SALES

Like millions of discriminating Americans, we had sampled the products of Bellows & Company, distinguished importers and wine merchants. Naturally, when Bellows came to us for a sample of our product, we were complimented. Their sales plans called for a two-bottle carton to promote different items in their extensive line—related items like gin and vermouth, whiskey and vermouth, or two bottles of any other Bellows product. A smart merchandising idea—which put us on our mettle to come up with an equally smart display carton idea.

This carton forms a miniature replica of the quaint old Bellows Building in New York City, complete with gabled roof. Bellows & Company tell us this "display house" was enthusiastically received by the trade. It got widespread window and counter display, and judging from the reorders we have received, it evidently helped sell a lot of bottled goods.

CAN WE HELP add sales-appeal to your product?

Do you have an old package that needs a face-lifting for today's self-selling trend? Do you have a product that has never been packaged, or an idea that is "hard to package"? Let Gardner-Richardson tackle your problem. No obligation, of course. Write, today.

MAKE MORE EYES REACH FOR YOUR PRODUCT IN CARTONS OF COATED LITHWITE* Bellows & Company, like so many other smart merchandisers, get extra sales from the extra eye-appeal of Coated Lithwite, the quality clay-coated board that's whiter . . . brighter. Colors hold up brilliantly on Coated Lithwite . . . pictures reproduce with true-to-life realism. Rub-resisting. Fade-resisting. For a practical way to upgrade your cartons, investigate Coated Lithwite.

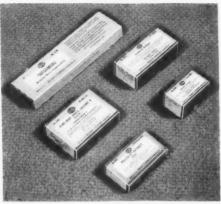
*Reg, U. S. Pai. Off.

THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio Sales representatives in Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

VC





CASE HISTORY

This group of Miller-made boxes, in current use by Sharp & Dohme, demonstrates how Miller service can be helpful in achieving a family resemblance among various products in a manufacturer's line. Such a family resemblance is particularly desirable in the pharmaceutical field. Here it is the package's function to establish *quickly* the name of the product and the identity of the manufacturer. In addition, packages must afford full protection to the contents, which often are fragile or perishable or both.

These set-up boxes for Sharp & Dohme meet *all* these requirements. Despite the different sizes and shapes of the contents, the boxes bear a resemblance immediately recognized by users and by the sales force.

Whatever your packaging problem ... protection, ease of loading, sales appeal, identification, assistance in shipping and inventory situations . . . you'll do well to call us in before you draw up your package specifications. Frequently we can help you design a package that will do more for your product, at the same cost or lower cost, than you might otherwise discover. Miller-designed boxes are doing just that for manufacturers in many fields . . . pharmaceuticals, hardware, confectionery, apparel, toys, and jewelry, to name a few.

Designers and manufacturers of SET-UP PAPER BOXES

25 PACKAGING SHOWS

BOSTON, MASSACHUSETTS NEW YORK, NEW YORK PHILADELPHIA, PENNSYLVANIA BALTIMORE, MARYLAND ROCHESTER, NEW YORK PITTSBURGH, PENNSYLVANIA DETROIT, MICHIGAN CLEVELAND, OHIO CHICAGO, ILLINOIS CINCINNATI, OHIO ST. LOUIS, MISSOURI ATLANTA, GEORGIA NEW ORLEANS, LOUISIANA MINNEAPOLIS, MINNESOTA OMAHA, NEBRASKA KANSAS CITY, MISSOURI OKLAHOMA CITY, OKLAHOMA DALLAS, TEXAS DENVER, COLORADO SALT LAKE CITY, UTAH SEATTLE, WASHINGTON SPOKANE, WASHINGTON PORTLAND, OREGON SAN FRANCISCO, CALIFORNIA LOS ANGELES, CALIFORNIA

You'll be welcome at our exhibit

at the Fackaging in

Atlantic City, May 10-13

You'll find that our display and all the other interesting ones will make your trip worthwhile. You know, however, that there's always a Hazel-Atlas packaging show near you. Our twenty-five sales offices are located for your practical use and convenience. Visit or call them for glass containers that protect, display and sell.



HAZEL-ATLAS GLASS COMPANY, WHEELING, WEST VIRGINIA



TRAY-LOCK MACHINE

FINISHED-EDGE CARTON FORMER



Forms lock-type trays and Sets up open-top doublecartons from unglued blanks wall trays and cartons

Completely automatic, these machines deliver readyto-fill trays and cartons at speeds up to 90 per minute. Both units produce a wide variety of tray and carton sizes and styles, all neatly squared with sturdy, straight sides. Either machine plugs into regular

SEND COUPON FOR COMPLETE DETAILS ON ANY OF THESE MACHINES

General Mills, Inc., Dept. M 49 1620 Central Ave., Minneapolis 13, Minn.

Please send complete information regarding Tray-Lock Machine Finished-Edge Carton Former Powder Filler Model E Model D Rotary Model Have representative call.

NAME POSITION

ZONE___STATE_

VACUFLOW POWDER FILLERS

Use a new precision method of drawing powdered products into containers by means of an intermittent vacuum. This permits complete control over weight and density of powders.



MODEL E

Fills bulk containers up to 200 pounds. Operator positions containers; machine fills them to precise weights automa-



MODEL D

Handles small and medium-size containers fed manually. Ideal for manufacturers with low tonnage production on a range of products.



ROTARY MODEL

Fills up to 300 containers a minute automatically. Handles a wide variety of sizes of cans, jars, small-mouth bottles and cartons. Available with 8, 12, 16, or 24 filling heads.

MADE BY ONE OF THE WORLD'S LARGEST USERS OF PACKAGING MACHINERY

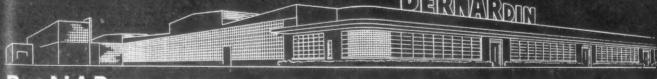


MEET US AT BOOTH 501, ATLANTIC CITY PACKAGING EXPOSITION MAY 10-13

ADDRESS

Never lose sight of the consumer when you package Your product...





BERNARDIN BOTTLE CAP COMPANY · EVANSVILLE, IND.

Since 1881 America's First Manufacturer of Metal Closures.



Three of the four largest prepared dessert makers buy Riegel Papers regularly

Among the producers of prepared desserts, and in many other fields, you will find most of the sales leaders are regular Riegel customers. They buy from us because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Write to Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

Riegel Papers We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.



ASH registers ring more frequently in stores that bet on the public preference for packaged products. A recent survey showed 84% of the buying public prefer packaged products.

Retail stores last year bought nearly half a billion set-up boxes for their own packaging needs to bolster their 117 billion dollar business. Cash in on cash register sales where it counts - at the point-of-sale - in the package. Investigate the versatile advantages of set-up boxes for your product or retail store sales.



ATIONAL PAPER BOX MANUFACTURERS

ssociation AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia, Penn.



There is hardly a Product worth looking at that can't be sold Faster and More Profitably in a NUVOPAK °

SALES MANAGERS LIKE ITS SELLING FEATURES

PRODUCTION MEN LIKE ITS PACKING **FEATURES**



TOUGHNESS LIGHT WEIGHT



APPEAL TO IMPULSE BUYERS



PROTECTION SHOP-WEAR



IT'S OPEN ...



IT'S FULL . . .



IT'S CLOSED.

RECTANGULAR, ROUND AND FOLDING BOXES • PLASTICS • LABELS • ALLIED PRODUCTS

ambridge Paper Box Co., Dept. MP CAMBRIDGE 39, MASS. e send me mere information about your new NUVOPAK

CAMBRIDGE PAPER BOX CO.

CAMBRIDGE 39, MASS. NEW YORK CITY PROVIDENCE, R. I.



to make a party

the "extra special" things that lend a festive air . . . like Zenith

Brand* Cherries for instance. And just look at those olives! Just about as inviting as they could be!

Such tasty morsels put "zip" in any luncheon, buffet supper or informal snack.

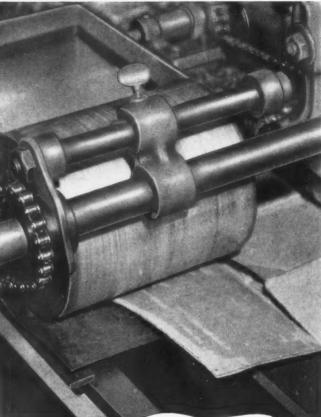
Inviting, too, are the smartly designed
Crown Screw Caps. They have eye
appeal and buy appeal. With their Deep
Hook Threads, they spin on easier and
securely seal-in the flavor and goodness of these
products. The cap liners are equally important. Crown's process, research and analytical
laboratories have a lot of experience when
it comes to liners. They are at your
service in selecting the right type. Crown Cork
& Seal Company, Baltimore 3, Maryland.
World's Largest Makers of Metal Closures.



*Zenith Brand Olives and Cherries are packed by John Magee & Co., Inc., Saybrook, Conn.

Approved by Millions of Housewives





Seal CASES IN 20 SECONDS!

BOXSEAL is the new fast setting Shipping Case Glue which tears fibres 15 to 20 seconds after application by brush or machine. Brings new high speed and efficiency to all production lines where short pressure time is essential. BOXSEAL permanently seals all types



of shipping boxes, corrugated, Fourdrinier kraft, jute, solid fibre. Non-toxic, odorless, stainless, and most of all . . FAST SEALING!

Get our complete laboratory report on Paisley BOXSEAL and take advantage of the offer to send a trial 5 gallon shipment at the 55 gal. drum price available to all drum users of shipping case glues. We'll ship ON APPROVAL, F.O.B. our nearest plant, New York or Chicago. Fill in the coupon below, attach it to your letterhead, and mail it to us TODAY.



IN AND MAIL THIS COUPON FOR GENEROUS TRIAL OFFER X



Gentlemen: Please se	end complete	information abo	ut Paisley BOXSEAL	Shipping Case	Glue.
----------------------	--------------	-----------------	--------------------	---------------	-------

- You may send, on approval, trial 5 gal. shipment of "BOXSEAL" at 55 gal. drum price.
- Send me a copy of Laboratory Report on "BOXSEAL".

BUYER

Nanufacturers of Glues · Pastes · Resin Adhesives · Cements and related Chemical Products



UNIFORMITY...

of every Carton...

every order...plain, printed, laminated, paraffined.

CHICAGO CARTON COMPANY

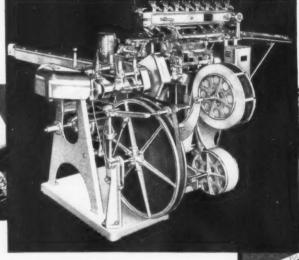
CHICAGO CARTON COMPANY . 4200 SOUTH CRAWFORD AVENUE . CHICAGO 32, ILLINOIS



PENNY WISE OR PACKAGE POOR? CUT COSTS WITH LYNCH

WRAP-O-MATIC





You stop pouring profits into your packaging when a high-speed Lynch WRAP-O-MATIC takes over! Model RA illustrated, turns out neat, trim packages at high speeds. And talk about savings! In many instances the installation of a Lynch WRAP-O-MATIC has saved as much as 75% labor costs and 35% materials against hand wrapping, besides giving an improved appearance to the product and package.

Don't let your package be a profit "bleeder". Investigate how you can reduce labor and packaging costs by writing for a folder showing the complete Lynch WRAP-O-MATIC line.

LYNCH PACKAGING MACHINERY ON EXHIBIT IN BOOTH 201 National Packaging Exposition . Atlantic City . May 10-13







CANDY & COOKIE



PACKAGE MACHINERY DIVISION TOLEDO 1. OHIO U.S. A.

CORPORATION



PAPER PACKAGING



BUTTER & OLEO CARTONING MACHINES





Tri-Otate PLASTIC

RIGID PLASTIC BOXES

do Double Duty

Tri-State Rigid Plastic Boxes protect, display, merchandise their contents. When emptied, they are extremely useful for a number of household purposes, including service in the refrigerator.

Tri-State Rigid Plastic Boxes provide quickmoving, over-the-counter merchandise.



Diam. 4-3/8" Height 3/4"



4-1/2" x 13" x 9"



Diam. 3-3/4" Height 1-1/8"



40 - 00 - 21/4

"Tailor made" for the job packaging must do today—sell these non-toxic, odorless, shatterproof, dimensionally stable containers assure complete protection for contents from all harmful agents normally encountered. Crystal clear, translucent or opeque, their sparkling evoluty thates exceptional appeal at the point of sale.

Packaging operations are simplified and costs reduced in practically all instances, because scaling tape, folding, labels, repeated handling, etc. are eliminated.

Tri-State Rigid Plastic Boxes can be employed to good advantage by virtually all manufacturers desiring highly protective, distinctive, attention getting packaging. Especially recommended for tood, dairy, cosmetic, confectionary, bakery, tobacco, iswalry, and hardware influshies.

NOTICE: We are the sole inventors and originators. Patents have been applied for on all these designs and infringers will be prosecuted.



Diam. 4" Height 2-1/2



4" x 4" x 3-1/4"



The best Rigid Plastic Boxes are Injection Molded by



TRI-STATE PLASTIC MOLDING COMPANY

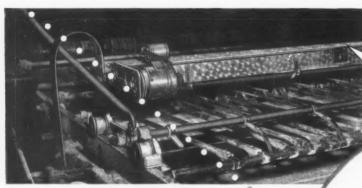
HENDERSON, KENTUCKY

New York Offices: 12 E. 41st Street - Murray Hill 3-6572

OXY-DRY means...

- "Good-Bye" OFFSET WORRIES
- Press Operation to Full Delivery Capacity

"NON-STOP" PRINTING



Positiving 10.000 voltage of the first of th

KEEP RUNNING

TO FULL CAPACITY OF PRESS DELIVERY WITHOUT FEAR OF OFFSET

Stopped presses make no money. OXY-DRY helps keep presses running—makes you more money because (a) Sheets can be stacked to full capacity of press delivery without trace of offset. (b) Quick drying of ink through ozone action speeds handling—helps keep delivery clear. (c) One powder-filling of unit usually lasts 24 hours running time. No press stoppage for frequent refills.

NO OTHER SPRAYER CAN OFFER ALL THESE ADVANTAGES

- UNIFORM OFFSET PRE-VENTION . . . Powder bonds instantly across printed surface, acting as uniform spacer
- between sheets.

 2. STATIC ELIMINATION
 ... assures easy flow
 of sheets. No sticking or jamming of
 paper.
- Non-toxic ozone created by electrical discharge from high-voltage tube speeds oxidation of ink—quickens drying.
- Removal of all offset

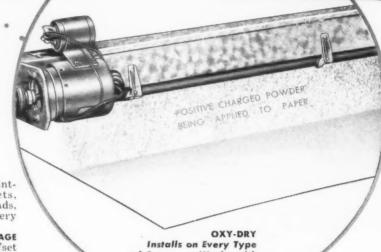
danger enables printer to stack sheets, handle full skid loads, at full press delivery capacity.

capacity.

SAVES LABOR, STORAGE
... OXY-DRY offset
prevention speeds delivery time, saves

livery time, saves labor, stops waste.

HEALTHFUL, ECONOMICAL . . . OXY-DRY offset powder—a mixture of edible starch powders— is a fullyendorsed Health factor. No dust hazard. No exhaust system required. Small amt. of powder needed.



OXY-DRY
Installs on Every Type
of Press . . . Works with
Any Kind of Printing
Process.

Press and Process, Are Now Successfully Equipped with OXY-DRY SPRAYERS.

We will gladly supply you names of printers in your region using OXY-DRY SPRAYERS with the type of printing press or process in which you are interested.

for further information write Dept. MP.

OXY-DRY SPRAYER CORPORATION

320 So. Marshfield Ave., Chicago 12, III.

... allows stacking of sheets to full press delivery capacity without trace of offset.





Nothing tempts the appetite like true full color. And Strietman's Rainbow Assortment of fine cookies sells faster in the colorful new Milprint package that looks as good as these delicious cookies taste.

If you make a packaged product it will pay
you to talk to your local Milprint man
and get his suggestions for package improvements.
He works with the widest choice of packaging
materials and printing processes available
from a single source. He commands a large staff
of the nation's foremost creative packaging artists.

The services of these specialists are yours at no extra cost so why not call or write today!

*This insert produced by Milprint, Inc., Lithographing Division.

PACKAGING MATERIALS LITHOGRAPHY & PRINTING



GENERAL OFFICES, MILWAUKEE, WIS.
SALES OFFICES IN ALL PRINCIPAL CITIES

MILPRINT Helps You All the Way

Milprint's merchandising experts will help you build a complete merchandising campaign around your package line with well planned lithographed displays, booklets, broadsides — all types of printed promotional material.



Printed Cellophane, Pliofilm, Acetate, Foil, Glassine, Plastic Films, Lithographed Displays, Printed Promotional Material.



is your problem HARD or SOFT?

Smart, new ideas in packaging often present new problems in the field of technical coatings. The material to be finished may be either hard or soft; but a specific finish formulation is usually called for, because there is no universal finish that will meet the requirements for every application.

The experience of our laboratories in the development of decorative and functional coatings for use on paper, board and foil, caps and closures has been widely acknowledged by packaging designers and engineers.

You can get extra eye-appeal and extra-protection for your package with a prescription finish offering such properties as high gloss, low moisture vapor transmission, brilliant colors, depth, flexibility, long life and fade resistance.

If you are working on a package for a new product or the re-design of your present line, let us help tackle your problems. There is no obligation. Write today.

R TOUGH JOB HEADQUARTERS
Prescription Finishes
Give us your coating problem.
We guarantee you an answer based

We guarantee you an answer based on your conditions, and not just a standardized formula.

THE WATSON-STANDARD CO.

PAINTS . VARNISHES . INDUSTRIAL FINISHES AND LITHOGRAPH COATINGS

FACTORY AND GENERAL OFFICES. PITTSBURGH, PA. WAREHOUSES. BOSTON, BUFFALO, DETROIT, NEW YORK

ars

THE CONTAINER FIELD

appealing



KITTEN



distinctive



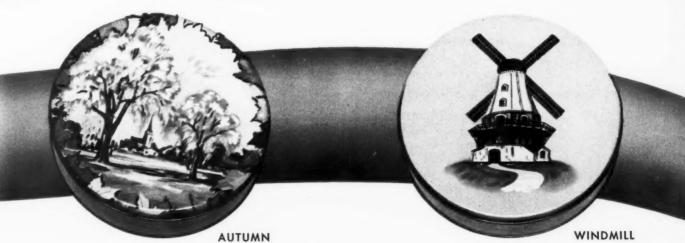


practical



IRIS





BROCHURE WILL BE MAILED UPON REQUEST

Quality OLIVE CAN COMPANY Service

MANUFACTURERS • DESIGNERS
PLAIN • DECORATED • LITHOGRAPHED

METAL CONTAINERS

450 N. LEAVITT ST., CHICAGO 12, ILLINOIS

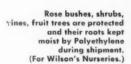
BAI

APF

ARE YOUR PRODUCTS GOOD TRAVELERS!



Cones of nylon and other yarn travel "air-conditioned" in Polyethylene from converter to customer. (For Sauquoit Silk Co.)

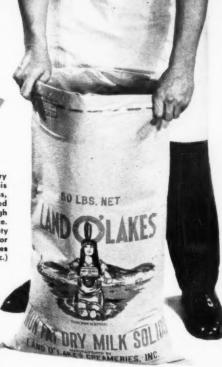








Dry milk stays dry and clean in this odorless, tasteless, Polyethylene-lined bag with very high tear resistance. (By Arkell Safety Bag Co. for Land O'Lakes Creameries, Inc.)



After shipping, trucking, palletizing, warehousing, do your products reach customers still in the pink of condition?

Illustrated here are products of three foresighted suppliers that do . . . because of their well designed packages using BAKELITE Polyethylene—by Plax Corporation.

The qualities of BAKELITE Polyethylene that make it such a superlatively protective packaging material are:

- Extreme resistance to water, moisture, oils, fats, greases, and most chemicals.
- High flexibility and tear-resisting toughness, even at below zero temperatures.
- Surface dryness that eliminates sticking, clinging or "blocking" and provides faster, easier handling.
- High snag-resistance due to basic elasticity.
- Heat-sealability.
- Tasteless, odorless, non-toxic.

No wonder so many manufacturers are now choosing BAKELITE Polyethylene for packaging such products as frozen foods, fresh foods, cosmetics, candy, flowers, tobacco, chemicals. For complete information on the use of BAKELITE Polyethylene—or VINYLITE Brand Plastics—in film, molded or extruded forms, or for coating paper or foil, write Department EZ-55.

Visit the Bakelite Corporation Booth at the National Packaging Exposition at Atlantic City, May 10-13

Now ... a tape that sells as well as seals!

How to create packages with point-of-sale impact



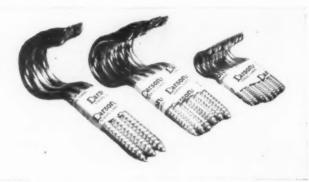
Combination deals are packaged and promoted in a single operation with this continuous-strip "SCOTCH" Brand Special Printed Tape.



A strip of Special Printed Tape anchors this coffee can key and ties up the product with Flame Room's radio program.



The lid of this ink container is tightly sealed with a printed crepe-backed tape that conforms to odd shapes without bunching or wrinkling.



Small items are neatly packaged and labeled with one wrapping of Special Printed Tape. Facilitates handling, cuts costs, promotes unit-pack sales.

SEE US AT THE NATIONAL PACKAGING CONVENTION, MAY 10—13

We'd like to show you how tape is being used for all kinds of packaging jobs all over the country. You'll see tapes that sharp metal can't cut; tapes that stretch; tapes you can't stretch or break; transparent tapes; tapes no light can penetrate; moistureproof tapes; even tapes that do a complete packaging job all by themselves. See you at Booth 616!

Here's a low-cost way to put labels, advertising messages, instructions, prices on products of all shapes and sizes. Your message is printed to order on film or treated paper backing.

More and more manufacturers are finding that tape is the solution to tough packaging problems. Why not send us your choicest packaging headache? The odds are we'll find the answer with Special Printed Tape or one of the hundred-odd other pressure-sensitive tapes available under the "SCOTCH" brand.

ANOTHER

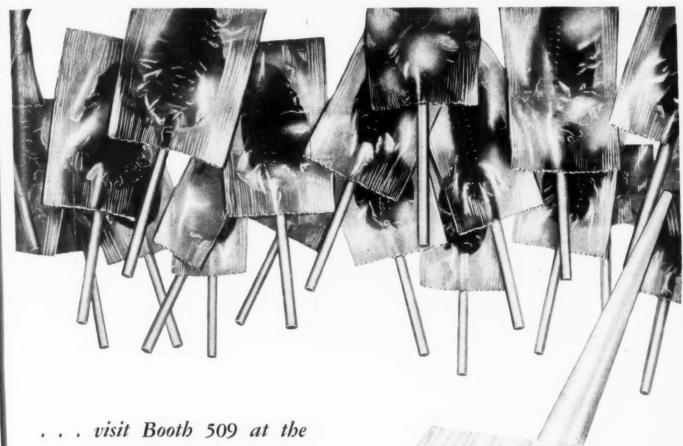


PRODUCT

MINNESOTA MINING & MFG. CO., Saint Paul 6, Minn.

"SCOTCH" is the registered trademark for the more than 100 varieties of adhesive tapes made in the U.S.A. by the 3M Company

General Export: DUREX ABRASIVES CORP., 240 North Ave., New Rochelle, N. Y. • In Canada: CANADIAN DUREX ABRASIVES LTD., Brantford, Ontario



PACKAGING EXPOSITION

and see THE IMPROVED WRAP-ADE AUTOMATIC CANDY POP WRAPPING MACHINE.

AND FOR THE FIRST TIME

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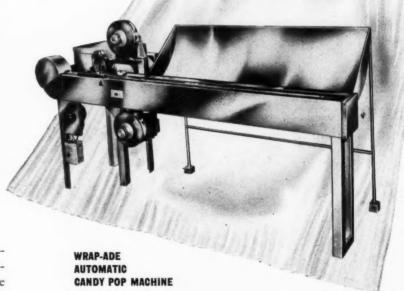
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NG

NEW! WRAP-ADE MODEL 52—Automatic Packager which feeds, opens, fills and seals flat bags automatically without any manual operations.

NEW! WRAP-ADE MODEL B-12— The first low priced machine to efficiently heat seal Polyethylene, Vinylite and other new packaging materials.



WRAP-ADE MACHINE CO., INC. • 778 BERGEN STREET • BROOKLYN 16, N.Y.

WRITE TODAY FOR FULL DETAILS OF THESE AND OTHER WRAP-ADE MACHINES

Modern Package Printing Demands

THE quantity and variety of modern package printing demands faster printing, quick drying, brilliant colors, greater resistance. Printing inks must hold up against rubbing, running, fading, must not print through food wraps.

These demands are being met today, by the modern ink chemist with wellequipped research laboratories at his disposal.

To insure the best results, package printers get in touch with their supplier early—the best time is while the package is still in the dummy stage. Then colors may be selected which can be matched in printing inks with the desired working qualities and resistance factors.

Many leading package printers, familiar with IPI's experience in developing printing inks for packaging, consult us early in their preparations for printing a job.

We invite inquiries from printers with package printing ink problems. Address inquiries to IPI, Division of Interchemical Corporation, Dept. A, 350 Fifth Avenue, New York 1, New York.

At right: There's no opacity problem in aniline printing with IPI Anilox inks. They're 100 per cent pigmented. They also print clean and sharp, are light-fast. New Anilox-OS inks for porous stocks offer more uniform color, immediate roll rewind, and long runs without wash-ups. Anilox-OS inks require synthetic plates and rollers.





Toys courtesy of Unique Art Manufactur

Now, quality wet-ink varnishing is a reality with IPI Elixirin metal decorating inks and A & W Elixirin wet-ink varnishes. Together, they make possible the wet-ink varnishing of many prints which heretofore had to be dry varnished. They eliminate many common wet-ink varnishing troubles such as bleeding, embossing, haloing, crawling, and orange peel-and produce

an exceptionally smooth and glossy finish at no ext this ing cost. Elixirin inks also give excellent results when us with IPI in the dry-ink varnishing process. One top metal declibre con rator (name upon request) has written us, "Elixir torrugate inks are the finest lithographing inks I've used in I brinks to 35 years of metal decorating. Halftones, Ben Day, printed solids are all the same when using your Elixirin inks 45,000 c

MODERN PACKAGING

nstance nto the

search

Inks Which Dry Faster, Have Greater Resistance, with Brilliant Color, More Uniformity, and Better Adhesion to New, Hard-to-Print Surfaces



Milkmaid Products courtesy of Milkmaid, Inc.

Printers working on glass and other hard-to-print surfaces want sharper, more permanent prints. IPI research has developed inks which produce excellent results on glass, plastic sheeting, metal foils, plastic coated papers, acetate, and glassine.

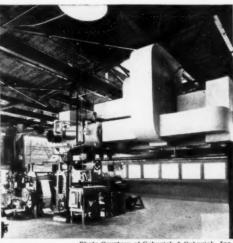


Photo Courtesy of Gehnrich & Gehnrich, Inc

High-speed bag printing is done with IPI Vaporin heat-set inks on presses equipped with drying units like that above. Vaporin inks set instantly, print sharp, adhere firmly. IPI also makes Vapolith heat-set offset inks for lithographing labels.



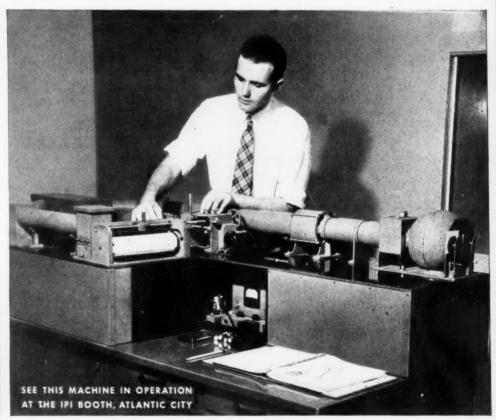
Vaposet inks "set in water," too — instantly. Especially good for food wraps because they're odor-free, can be put through waxing machines in two hours, have exceptional heat-sealing qualities. They also dry fast on moist corrugated board.



ome package printing specs are tough...for nstance, inks must not "print through" wrappers onto the product. Other specifications are resistance to heat, chemicals, moisture, sunlight, rubbing.



o ext. This ingenious "break-apart" box is printed en us with IPI Vaposet inks, one of IPI's many inks for all destriction fibre containers. Vaposet inks set instantly on moist torrugated board, eliminate waiting for either board ling or inks to dry. One manufacturer (name on request) Day, printed in two colors, taped, bundled, and packed a inks 45,000 corrugated containers in 4 hours!



More and more package printers are demanding color control. IPI offers a unique color control service. With the G. E. Recording Spectrophotometer shown above, we plot curves of each color and acceptable tolerances. The curves can't "look different" under different lights, or fade with time. When the colors have been subjected to this analy-

sis, precise standards with press tolerances can be established. The standards are permanent and unvarying. Colors printed anywhere at any time can be checked against them, and more control over color uniformity exercised even when different printers print the package in different parts of the country. Ask us the names of some firms using this service.

Where can my printer buy Proxmelt heat sealing paper

Who makes a heat sealing label for Saran



What machine will heat seal a bag saddle on a cellophane tube

Who makes heat seal laminated glassine bags

What paper mills supply 2 lacquered glassine in rolls

Who makes heat sealing frankfurter bands

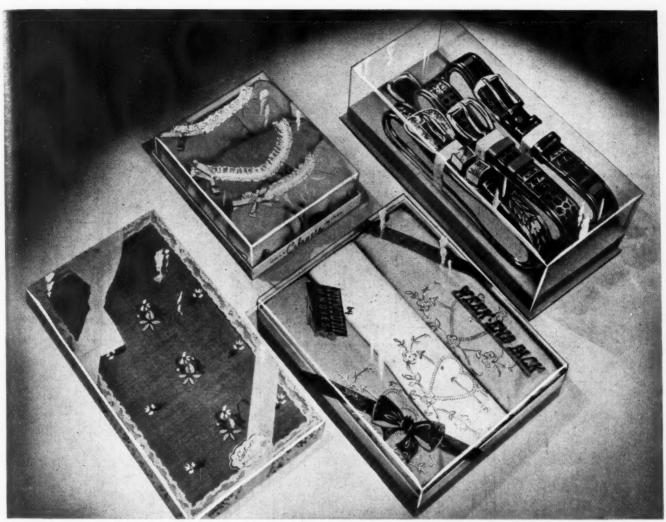




Answers to those \$64 questions

Let us send you the source lists of packaging components and intermediate materials... converters of Proxmelt*
... Proxseal*... Proxcote*.

PYROXYLIN PRODUCTS, INC., CHICAGO 32, ILL.



Tex Tan Belt Container, Magnolia Paper Co., Houston, Texas Scamperettes Container, Miro Container Corp., Inc., Brooklyn, N. Y Towel Container, Rome Plastics Specialties Co., Worcester, Mass Plymouth Week-End Pack, Newton Carton Co., Newark, N. J.

Sell 3 to a Package

If you'd like to ring up sales in triplicate, package your products in containers that do a selling job—with product visibility... product appeal... product protection both before and after the sale is made. The containers that meet these requirements are made of LUMARITH* TRANSPARENT FILM!

Packaging with Lumarith transparent film makes selling by threes a workable merchandising idea. For sources of supply for transparent containers, window boxes and combinations—both custom made and stock, get in touch with a Celanese representative. Celanese Corporation of America, Plastics Division, Dept. 8-D, 180 Madison Avenue, New York 16, N. Y.

LUMARITH* TRANSPARENT FILM

Celanese

*Reg. U. S. Pat. Off.

PLASTIC

PAPER BOXES

SHOUP

OWENS

FIBRE CANS

· incorporated · HOBOKEN NEW JERSEY

AN IMPORTANT NAME IN PACKAGING

PAPER BOXES

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HOBOKEN

NEW JERSEY

Another Great
Lachman-Novasel Exclusive
The Sensational
New Stretchable

metalcrepe



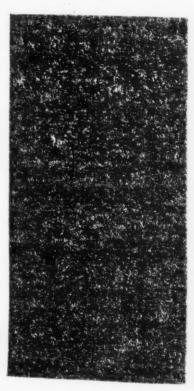
See for yourself, prove for yourself — the superb extra qualities of this magnificent item. Rub two of the edges together and you'll realize it is amazingly color fast and scuff proof. Made on special type of kraft, Metalcrepe has remarkable strength. Due to creping, it has superb stretching qualities!

Silver 36" - 27½¢ per yd.

Colors 36" - 32½¢ per yd.

(Call or write for prices and sample sheets of special manufacturing items including fabric embossed, ink embossed, plain embossed, flame proofed, drapeable.)

FREE Sample sheets available. Write today.



*PATENT PENDING

Use Ultra Beautiful Metalcrepe for:

Fancy Boxes (hand and machine) • Gift Wraps • Paper Box Display Signs • Novelties • Toys • Candy • Cosmetics (Flameproof and drapeable grades are also available — write for details.)

13 Gorgeous Colors In Stock

#1050 Fireman Red

1051 Indigo Blue # 1052 Emerald Green

1052 Emerdid Gree # 1053 Silver

1054 Golden Ochre

1054 Golden Ochr # 1055 Bronze

1056 Cerise

1056 Cerise # 1057 Ice Blue

1058 Opera Green

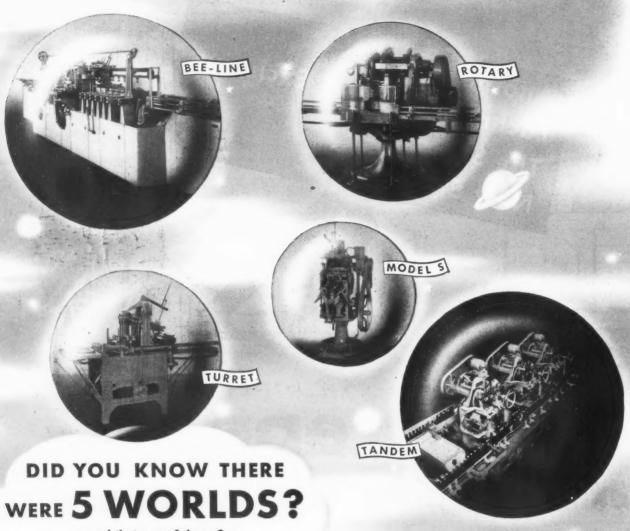
1059 Yellow

1060 Chartreuse

1061 Turquoise # 1062 Pink

Lachman - Novasel Paper Corp.

109-111 Greene Street New York, New York



— and that one of these five is the best Labeler in the WORLD for you

World BEE-LINE is for high production, high quality application of labels to glass packed foods, condiments, wines, spirits, drugs, cosmetics and many other products. It applies all kinds and sizes of labels to all kinds and sizes of glass containers. Production up to two a second. World TURRET is for automatic, low cost labeling of a quality worthy of the finest products packed in glass. It handles containers from 2 to 4 ins. diameter, 3 to

13 ins. high. It applies body labels and neck labels, all-around neck wraps or foil, when desired. Production 60 to 140 per minute.

World TANDEM is for mass production labeling of round bottles or jars. Designed to meet expanding production needs with maximum economy at any desired rate from 75 to over 300 bottles per minute.

World ROTARY is for dependable, low cost labeling of round glass containers of all sizes from 4 oz. or less to 32 oz. or

more. Applies body labels, body and neck labels, or body labels, neck labels and foil in one operation, up to 85 per minute.

World MODEL 5 is the Semi-Automatic Labeler for applying all kinds of labels to all sizes of containers from tiny vials to gallon jugs. Permits rapid changeovers and assures fast operation by unskilled workers.

Bulletins on any or all types of Labelers will be mailed you upon request. Recommendations and estimates will be made upon receipt of samples of your containers and labels.



ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpess

WORCESTER, MASSACHUSETTS

New Tork Philadelphia
Louisville Salt Lake City
Toronto Winnipeg

Pittsburgh Chicago San Francisco El Paso Seattle Portland Phoeni lewioundland Vancouver Mexico City San Juan, P. R. - Ciudad Trujillo, D. R. Los Angeles Denver London Montreal Sydney, Australia Honolulu, T. H.

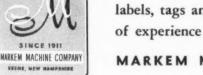


Quality Marking is a sales Aid

Quality marking of variable information on product or package is a definite aid to sales. Marking should be highly legible, attractive and economically applied. Marking equipment should be versatile and adaptable to rapid type changes.

With Markem marking machines and Markem specially developed, quickdrying inks you are assured of a high quality, clear, legible marking done in your own plant when you want it, as you want it, at lowest cost. No large inventories of pre-printed boxes or labels. No printing delays. No outside printing costs.

There are Markem machines especially designed for the clothing, hosiery, leather goods, sportswear, cosmetics, drugs, electrical and industrial fields for marking directly on the product and on boxes, labels, envelopes, bags, hanger labels, tags and on industrial and pressure sensitive tapes. Markem's 38 years of experience has helped solve hundreds of marking problems.



MARKEM MACHINE COMPANY, KEENE, NEW HAMPSHIRE

Investigate the cost-saving, time-saving advantages of Markem marking equipment. Have a Markem representative call and discuss your present marking operations or send us samples of your product or package with information to be imprinted. No obligation. Use coupon.

Visit us at the A. M. A. Packaging Exposition, Atlantic City, May 10-13. Booth 118.

	kem Machine Co., Keene, N. H. Have Markem representative call. Please send literature. We mark the following:
	We are sending samples of our product, package, label
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Con	npany
Ada	Iress

Security GIFT CONTAINERS



DESIGNERS · FABRICATORS IN PLASTIC · LEATHERETTE · MET



Cellophane is versatile. The clear transparency and protective qualities your package needs are engineered into it.

It is made with controlled degrees of moisture protection. It is available in different weights—with or without heat-sealing—for hand wrapping or high speed application on automatic packaging machinery.

Every product demands its own combination of *specific* packaging properties. That is why Sylvania offers different types of cellophane. Let the Sylvania representative help you determine the right one for your package. You will find him most cooperative.

KNOW YOUR CELLOPHANE!

The booklet "Types and Characteristics of Sylvania Cellophane," fills a long felt want in the

packaging field. Here are all the essential facts you need to determine the proper use of Sylvania Cellophane. Basic data on types, weights, protective qualities and recommended use is given in concise, easy-reference style. It's packed with the kind of information you need to meet today's packaging requirements. Write for your copy today. Address Market Development Department MP-4.



SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N.Y.

Plant: Fredericksburg, Va.





How many sales in a square yard?

It all depends on how well your package is designed to use the space—be it floor, shelf, or counter.

Remember, cans are compact. They stack easily into eye-catching displays. They encourage impulse buying.

It's evident, therefore, that one of the most profitable ways of putting a square yard of store space to work for the retailer (and for you) is to pack your product in metal containers.



This trademark is your assurance of quality containers. Look for it!

AMERICAN CAN COMPANY
New York · Chicago · San Francisco

FOR SALES AND PROFITS

- 1. Cans are break-proof.
- 2. Cans protect contents against light, air, insects, and moisture.
- 3. Cans are light mean lower shipping costs.
- 4. Cans are tamper-proof.
- 5. Cans are easy to open and dispose of.

no

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DU PONT POLYTHENE*

for packaging

offers this remarkable combination of properties

- LIGHTNESS IN WEIGHT! Specific gravity only 0.92. One pound of 2-mil film will cover 15,000 sq. in.
- CHEMICAL INERTNESS! There is no known solvent for polythene at room temperatures.
- TOUGHNESS AND STRENGTH... even at -70°F. or below! Doesn't get brittle in storage at low temperatures.
- TEAR-STRENGTH! Resists both initial tear and continuation of tear ... small cuts or nicks don't "run."
- WATER-RESISTANCE! Polythene absorbs less than 0.005% water.

- WATER VAPORPROOFNESS!
- A 2-mil film has a water vaportransmission rate of only 0.65 grams per 100 sq. in. per 24 hours. This value is not appreciably altered by sealing, creasing, or contact with liquid water.
- FREEDOM FROM TASTE, ODOR, TOXICITY! Won't affect the most delicate flavors.
- HEAT-SEALABILITY! Heat-seals at about 250° F.—high enough to resist above-normal conditions, low enough for practical workability.
- FREEDOM FROM PLASTICIZER!

Does not deteriorate on aging, stick to finishes, or corrode metal surfaces.

*Polythene molding powders are made by the Plastics Department of the Du Pont Company. This plastic is supplied by extruders, molders, and other processors in film 1 to 30 mils thick, widths up to 100 inches; lay-flat seamless tubing, widths from 2 to 56 inches; injection- and blow-molded containers and other forms. We will gladly suggest suppliers who can meet your needs.

CLIP THE COUPON BELOW and mail today for more data on Du Pont polythene for packaging. E. I. du Pont de Nemours & Co. (Inc.), Plastics Dept., Room 904, Arlington, N. J.



SQUEEZABLE BOTTLES blow-molded from Du Pont polythene package a wide range of products, from cosmetics to corrosive chemicals, (Deodorant bottle above molded by Plax Corp., Hartford, Conn., for Jules Montenier, Inc., Chicago.)



TURKEYS AND OTHER FROZEN FOODS get excellent protection in bags of heat-sealed polythene tubing. Bags can be washed and re-used. (Bags made by Traver Corp., Chicago, from film extruded by Visking Corp., Terre Haute, Ind.)



NEW PACKAGES FOR SURGICAL ACCESSORIES and many other metal parts made from polythene film, [Film extruded by Harwid Co., Cambridge, Mass. packages made by Chester Packaging Products Corp., Bronx, N. Y., For Austenal Laboratories, Inc., New York City.)



E. I. du Pont de Nemours & Co. (Inc.) Plastics Department, Room 904 Arlington, N. J.

Please send me more details on DU PONT POLYTHENE for packaging.

Name ____

Firm ____



PACKAGING INSTITUTION *Sanitape - Sealtite

Your First Impression of a keen, efficient, capable, organization is entirely corroborated by the experience of those concerns who for over 25 years have placed in us complete responsibility for their packaging requirements.

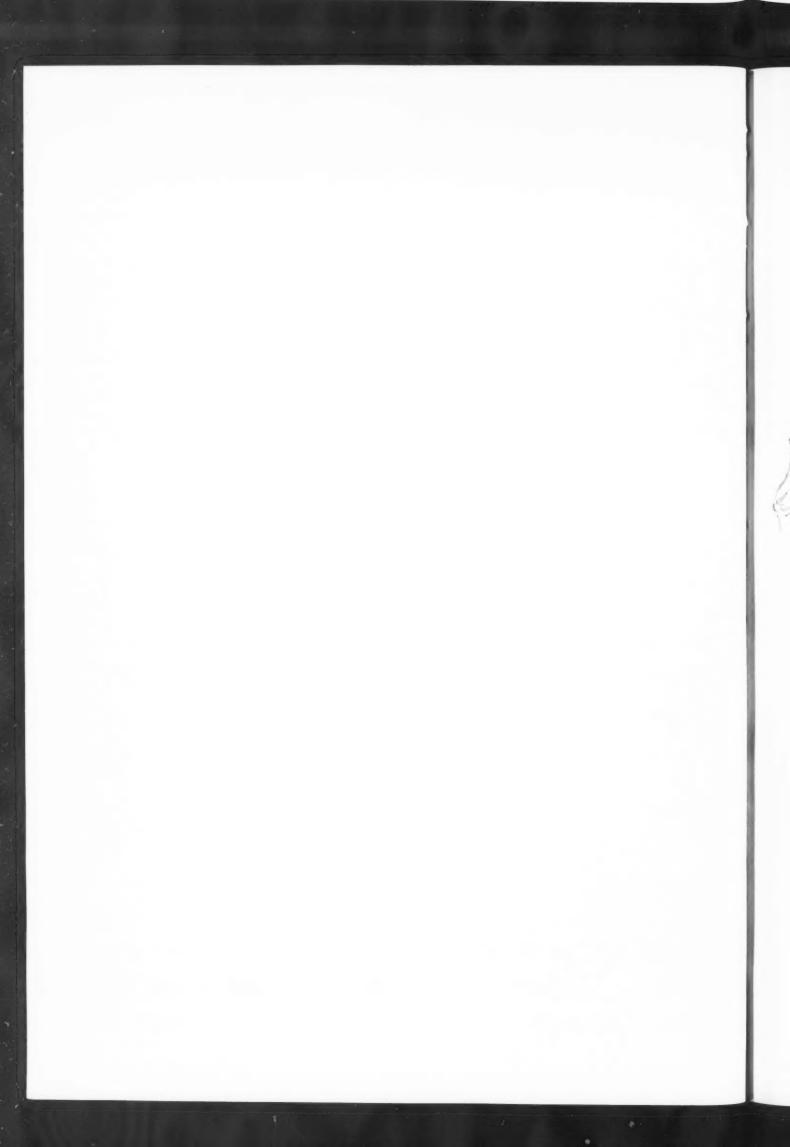
This specialized packaging experience, together with the most modern labor-saving facilities—100,000 square feet of light, hospital-clean space—efficient, well-trained operators and a capacity of 10,000,000 units daily—is ready to serve you.

If your product is pill, powder, cream or capsule—for sampling or standard sale units—in quantities of 5,000 or 5,000,000—the advantages and economies which our contract packaging service render, merit your careful consideration.

IVERS-LEE COMPANY · NEWARK, N. J.

* Sanitape-Scaltite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own airtight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending.





Tender houghts-Forever Living...

Here's eye-catching beauty that keeps tender thoughts alive through the years . . . gives the prestige that a truly fine product merits. Skilled Pilliod craftsmen style packages of wood to add eye-appeal, sales-appeal to cherished gifts for her . . . for him.

A variety of sizes and shapes make Pilliod-styled packaging your finest medium of luxurious display.

THE PINEST BACKAGES CROW ON TREES

This beautiful Pilliod chest is being teatured by 1847 Rogers Bros. in their 1949 June bride silverware promotion.





TODAY, no one disputes the importance of packaging. Since 1901, the Heekin Can Company has been the leader in the development and improvement in true color reproduction on metal. Heekin expert lithographers will give you true color reproduction whether your order runs in the thousands — or the millions.









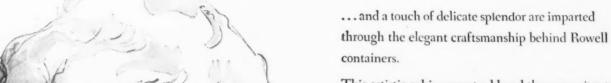


HEEKIN LITHOGRAPHED CANS

THE HEEKIN CAN CO. CINCINNATI 2, OHIO

Wistful Magic





This artistic achievement adds subtle persuasion to the purchase of cosmetics for face and dusting powders and helps send them on to their heavenly missions.

BATAVIA, N.Y.







pharmaceuticals



NOW...backed by the leader in the graphic arts

GILLINGROSE

The acquisition by ATF of the Klingrose Machine Corporation, builders of the finest type web-fed gravure presses to meet every modern requirement, promises great progress for the future of gravure. As the long-acknowledged leader in the graphic arts, and with many years of research and engineering in gravure now crystallized in the Klingrose line, ATF is in position to counsel fully on all details involving reproduction by gravure. Inquiries should be addressed to

American Type Founders KLINGROSE GRAVURE DIVISION

200 Elmora Avenue, Elizabeth B, New Jersey

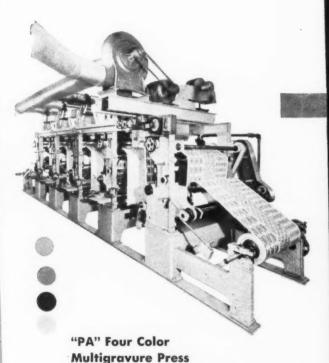
Everything for the printer in LETTERPRESS, OFFSET, GRAVURE



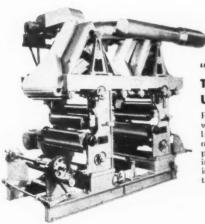
ATF-KLINGROSE

offers the most comprehensive line of gravure presses and auxiliary equipment.

PATENTS PENDING

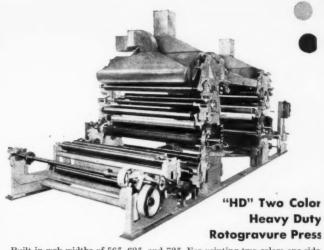


Built in web widths of 32" and 42". For printing on glassine, cellophane, film, laminated foils, and a wide range of papers. Will print four colors one side, two colors both sides, or three colors one side and one color other side. Operating speeds up to 450 feet per minute. Press comprises four printing units, pull roll with slitters, and center shaft rewind. Rotary sheeter or folder can be added. The "PA" presses are widely used for printing gift wraps, labels, box and candy wraps. Photo shows operator's side and rewind.

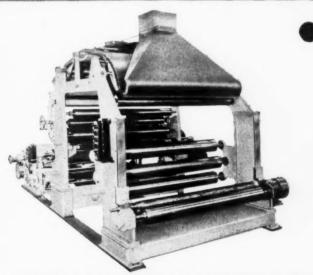


"NWP" Two Color Utility Press

Prints maximum web width of 24" and delivers rewound roll only. Ideal for cellophane, paper, and laminated foil. This press is also available in a three color model.

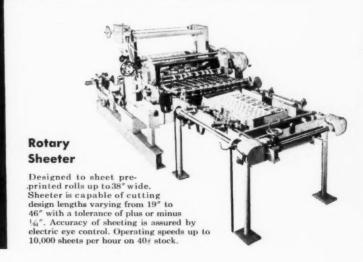


Built in web widths of 56", 62", and 72". For printing two colors one side or one color on each side of the web. Operating speeds up to 600 feet per minute on paper, tissue, film, laminated foil, and light-weight board. Can be equipped with a folder for magazine and newspaper work. The "HD" presses are used by paper converters for decorated papers, hosiery tissues and bags, cover papers, soap wraps, and other specialties. Photo shows operator's side and unwind roll stand.



"HD" Single Color Heavy Duty Rotogravure Press

Built in web widths of 56", 62", and 72". For printing on tissue, paper, and light-weight board. Operating speeds up to 1000 feet per minute. An excellent press for printing kraft and similar wrappings. Photo shows operator's side and electrically controlled surface rewind.





PACKIT PROTECTIT SELL IT with TROJAMI



Trojan Foil

For the Ultimate in Packaging Appeal

Trojan Foil has the sparkling, high-quality eye-appeal that gives any package more interest, more color, more sell! Trojan Foils, laminated to paper, board or cloth, are available in a range of attractive colors for many different packaging uses.

Trojan Laminated Specialties

For the Best in Protective Wrappings

Trojan pliofilm, cellophane and other protective laminations and Trojan special heat seal, grease-proof protective coatings guarantee moisture-free, dust-proof protection for packaged goods. Trojan protective papers are widely used and approved by the packaging industry, converters and processors and frozen food packers.

Trojan foil label and mounted papers For Eye-Catching Sales Messages

Trojan Foil Label Papers and Trojan Foil Mounted Materials are specially made for the graphic arts industry. These colorful, decorative papers are effectively used for direct-mail pieces, financial reports and many other distinctive printing applications.



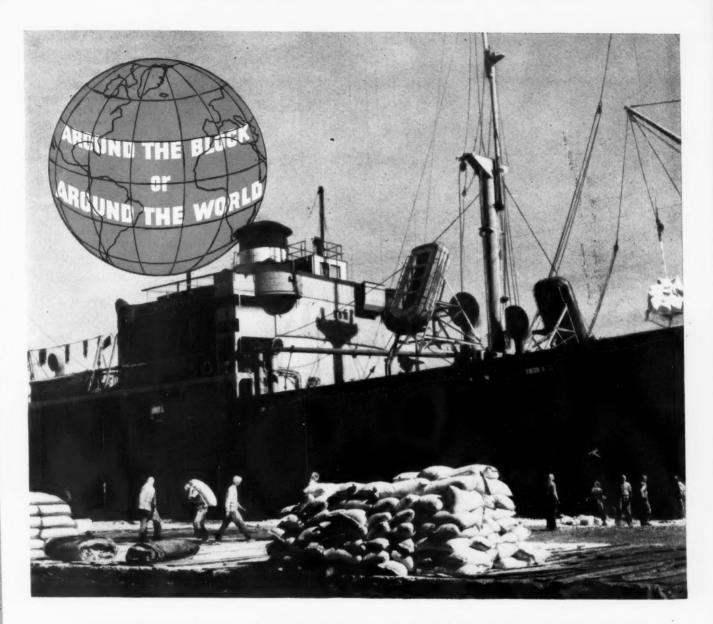
For more information and samples of Trojan Foil and Laminated Papers, write Dept. 29 today!



THE GUMMED PRODUCTS COMPANY

OFFICES . TROY, OHIO . MILLS

Chicago · Cincinnati · Cleveland · Los Angeles · New York · Philadelphia · St. Louis



AMERICAN FLOUR IS PROTECTED BY **COTTON BAGS FOR E.C.A. SHIPMENT**

When precious flour is consigned to the needy overseas (or for practically all other export use), it's shipped in sturdy, dependable cotton bags . . . the best container OVERALL!

Best because it assures a minimum of loss through breakage! Best because sturdy, good-looking cotton bags are much easier to handle, stack, and warehouse! Best because it has a high re-use and salvage value!

No wonder sturdy cotton bags are the preferred container for both export and domestic use . . . whether it's AROUND THE BLOCK or AROUND THE WORLD!

There's a Textile Bag Manufacturer Near You



TEXTILE BAG MANUFACTURERS ASSOCIATION **611 Davis Street**

Evanston, Illinois

Textile Bags-**Best OVERALL**

XFORD. Sales Sales

Oxford Papers in a full range of coated and uncoated grades are designed to help your printed products build more sales—they give an extra quality to the finished job that assures profitable results

YOUR OXFORD PAPER MERCHANT IS A GOOD MAN TO KNOW

Oxford paper merchants make it their business to meet your needs promptly—with the right paper for *your* job—from stocks in 64 principal cities, coast to coast.

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Oxford Miami Paper Company, 35 East Wacker Drive, Chicago 1, Ill.

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Little Rock Ark	٠	۰		Roach Paper Co.
Little Rock, Ark. Los Angeles, Calif.		۰	4	Blake, Moffitt & Towne
Louisville, Ky	۰	٠	•	r · · · · · · · · · · · · · · ·
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Philadelphia, Pa.	*			
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Pittsburgh, Pa		,		C 1D C
Portland, Maine				C. H. Robinson Co.
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Sacramento, Calif.				. Genesee Valley Paper Co.
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St Daul Minn				
St. Paul, Minn.			•	. Inter-City Paper Co.
Salem, Ore	1.			Blake, Moffitt & Towne
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San Jose, Calif				. Blake, Moffitt & Towne
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Tucson, Ariz				Blake, Moffitt & Towne
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Blue

STOPS THE EYE...



Right now rich, royal, eye-stopping Blue of Maryland Glass is playing an important part in the sales success of many nationally distributed products.

BLUE makes your product easier to see . . . BLUE makes your product easier to remember . . . BLUE makes your product smartly modern . . . BLUE insures rich, distinctive appearance . . . BLUE stands out, assures better display . . . BLUE advertises your product in the store and home . . . BLUE builds profits, steps up repeat sales.

Write for samples of appropriate stock designs. Or, let our design experts work with you in creating a special design for your exclusive use. Write today to Maryland Glass Corporation, Baltimore 30, Maryland.

PACK TO ATTRACT IN

SQUARE

Maryland Blue

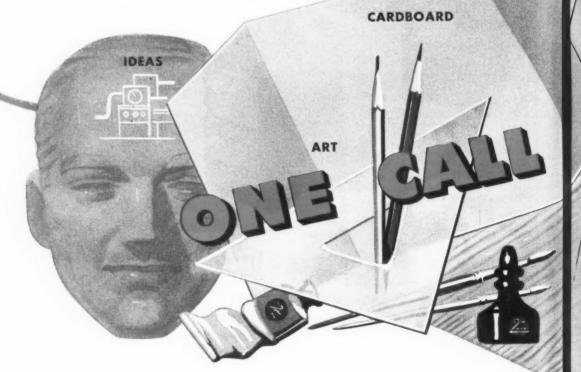
Also available in Crystal Clear Glass

River discrete to the control of the

River Raisin is equipped to supply all of your display requirements. A new and different service . . . as convenient as your telephone.

Our Creative Staff supplies the basic idea . . . our Production Experts produce the finished display in our fully equipped Monroe, Michigan plant. You can expect economies because River

Raisin is one of the country's largest manufacturers of corrugated and fibre board. The next time you want dimensional displays that produce immediate action call for our ONE CALL FOR ALL service.



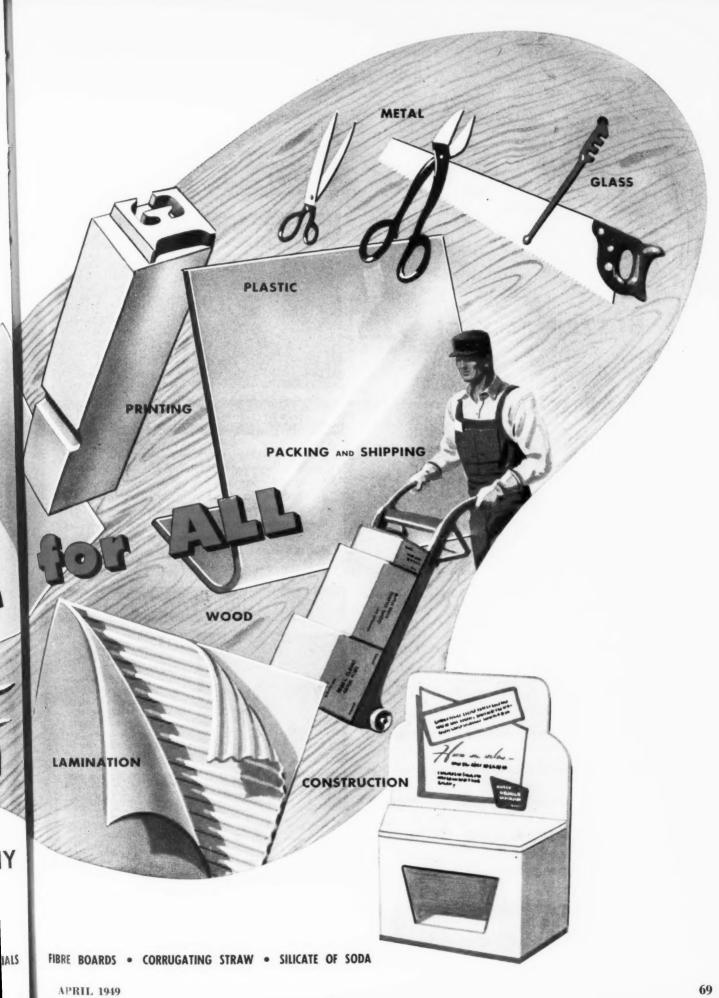
River Raisin DIMENSIONAL DISPLAYS

RIVER RAISIN PAPER COMPANY

DISPLAY DIVISION MONROE, MICHIGAN

CORRUGATED AND SOLID FIBRE SHIPPING CONTAINERS . PACKING MATERIALS

FIBR



SIMPLEX BAG MAKING MACHINE

High speed automatic! Produces up to 5000 formed, sealed, delivered fold-up bottom bags or crimp bottom bags per hour. Heat-sealed throughout. Electric eye control for printed material. Automatic labeling attachment. Heavy construction, patented sealing method.



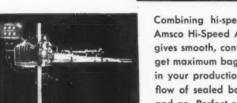
WHIZ-PACKER FILLING MACHINE



Fills all types containers from grams up to 5 lbs. with powders, nuts, crystals, candy, seeds, spices, noodles, etc. Speed 12 to 72 per minute. Variable speed control. Accuracy within 1/32 to 1/16 ounce, depending on package size. Bench or floor models available. CupTrol for weight adjustment while machine is in operation.

AMSCO BAG SEALING MACHINE

Combining hi-speed rotary and automatic action, the Amsco Hi-Speed Automatic Rotary Bag Sealing Machine gives smooth, continuous, non-intermittent operation. You get maximum bag sealing speed at minimum cost. Placed in your production line this machine maintains a steady flow of sealed bags with little or no handling. No stop and go. Perfect sealing because heat, pressure and time are fully controlled automatically! Models available now for heat - or glue sealing of all materials.



FOR A BETTER PACKAGE...

LESS COST

AT

DIVERSIFIED **PACKAGING** MACHINERY

Improve your competitive position by increasing your packaging production and cutting packaging costs. Contact Amsco for expert guidance in setting up more efficient packaging. Our trained engineers are at your service.



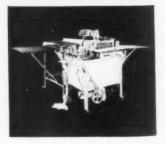
HOLM WEIGHING & FILLING MACHINE



This automatic net weighing and filling machine turns out a large volume of work in a small amount of space. Continuous operation without a trip lever. A "pacemaker" for weighing and filling semifree or non free-flowing materials such as macaroni, edible nuts, candies, rivets, nuts, screws, other items of hardware, etc.

MILLER WRAPPING MACHINE

Popular as the most flexible and versatile wrapping machine. Uses are practically unlimited! Wraps and seals with heat or glue. Takes cellophane, waxed papers, kraft papers, and other common wrapping materials. Easy to operate with wide adjustment range. Sturdily built. Portable.





Transparent packaging shows value, lets the product sell itself.

types of protection. Is your product guarded by a packaging

whether it does its sales and protective job at low cost . . . and

basic points make the best yardstick for measuring effective packaging. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Del.

DuPont Cellophane



Shows what it Protects — Protects what it Shows . . . at Low Cost

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

SEE IT DONE WITH MIRRORS-AT THE DU PONT EXHIBIT, AMA PACKAGING SHOW





that it can be formed into almost any shape you can name.

Undoubtedly the most outstanding thing about Kellogg is that they know exactly how. A set-up, heart-shaped candy box is no more of a problem to Kellogg than one for a dazzling piece of jewelry . . . or an odd-shaped bottle of perfume . . . or even a hand iron!

Kellogg has been handling acetate long enough to know what can and can't be packaged in it economically. If you're thinking about using acetate to add a selling sock to your product, get in touch with Kellogg first. You'll get the right answers to every question you may have.

For instance . .









United States Envelope Company Springfield 2, Massachusetts

CONTAINER MANUFACTURER PRINTING Foils Vinyls Polyethylene

 CONVERTING
 Cellophane Rigid and Flexible Acetate

Pliofilm Coated and Specialty Papers *Jacob's ladder"... child's toy

suggests a successful promotion... of

sales points on panels that flop

over regularly, rhythmically... stops

and holds spectators fascinated

while absorbing reiterated message...





Every maker of major appliances knows that the hardest part of his selling job is to get dealers and their salespeople to expose all the product's advantages to the prospect, review the reasons for buying . . .

General Electric has plenty to talk about in its new refrigerator-freezer combinations . . . no defrosting, separate storage sections, separate temperature range and controls . . . And wanted every prospect to know just what was new and important in GE models . . .

Einson-Freeman utilized the old principle of a toy..."Jacob's ladder" in an animated display of five panels that reverse one after another from top to bottom, and show ten selling points!

Actuated by a tiny motor, on a thimbleful of current, this GE display pleases and puzzles onlookers, holds them through successive sales messages, is a Main Street attraction for crowds on Saturday...and sells all the time!

Sells all the time . . . incidentally, is the basic E-F definition of a display. If you'd like sales material instead of mere lithography, you might find it worth while to talk with us . . .



Einson-Freeman Co., Inc.

Never-at-a-loss lithographers

STARR & BORDEN AVES., LONG ISLAND CITY, N.Y.

sine

ers

NC



THE CLAY-COATED BOX BOARD THAT'S CUSTOM-MADE FOR EVERY ORDER

Whiteness, Brightness, Uniformity and Gloss That Translate Eye Appeal into Buy Appeal

Many packaged foods are sold in folding cartons made of Ridgelo. For cake mixes, teas, spices, etc.—for any packaged food item of quality—Ridgelo complements the product by eliminating the factor of compromise.

That is true because Ridgelo is 100% custom-made! Customers get exactly what they want and need, not just run-of-the-mill stock. Whites are *really* white . . . brilliantly so. Colors are true, fast to light, insoluble, and *precisely* matched. Surfaces are uniform . . . and s-m-o-o-t-h.

Every sheet of the same order is as alike as care can make them and every repeat order is like the last made to a recorded formula. No customer is faced with the necessity of accepting something less than he needs, more than he wants, or risking variations in package appearance.

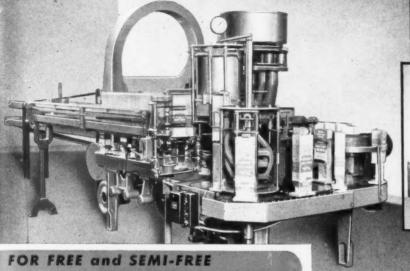
Those are among the reasons why you can rely on Ridgelo . . . to enhance the eye appeal of your packages, hold your packaging costs to the practical minimum, help you attain and keep sales leadership.

MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

REPRESENTATIVES

H. B. Royce, Detroit • Philip Rudolph & Sons, Inc., Philadelphia A. E. Kellog, St. Louis • Norman A. Buist, Los Angeles

TIME ... SAVE SPACE ... SAVE LABOR WITH



OUNCES TO POUNDS—standard containers or individual serving or sample packages, formed, filled and sealed automatically with PACKOMATIC top and bottom carton sealers and volumetric fil-lers. Standard model left; miniature model above.

FLOWING PRODUCTS Avoid Waste and Annoying
Dust with **PACKOMATIC** TELESCOPING FILLERS

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phia

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1. Telescoping Volumetric Filler

2. 8-pocket Filler for rectangular cartons.

3. 4-pocket Filler for 1 to 25 lb. containers.

4. 8-pocket Filler for round containers.

Whether you plan to package your product automatically for the first time, or want to modernize your packaging line, PACKOMATIC's 27 years' experience in designing and building specialized equipment for the nation's foremost manufacturers of packaged products will help you.

Illustrated are typical PACKOMATIC standard carton forming, filling and sealing machines. These units are available NOW-for almost immediate delivery-to help you put your packaged products on dealers' shelves in perfect condition with less labor, in less time, and for less money than you have ever done it before.

Write today for colorful literature on any or all of PACKOMATIC's packaging machinery for carton forming, filling, sealing or shipping case gluing and sealing-or tell us about any specific packaging project and we will be happy to advise you, without cost or obligation. J. L. Ferguson Company, 849 Republic Ave., Joliet, Ill.

CKOMATIC JL FERGUSON CO JOLIET ILL

Chicago, New York, Boston, Philadelphia, Tampa, Cleveland, Denver, Son Francisco, Los Angeles, Baltimore, Seattle, Portland, Dallas, New Orleans

FOR PACKAGING SOFT POWDERED PRODUCTS

PACKOMATIC turrettype, auger packerweigher, for flour and other soft powdered products. Handles containers from 6" to 22" high; weights from 1 lb. to 25 lbs.



Visit our booth No. 602 at the National Packaging Exposition, Atlantic City—May 10-13.



From these strategically-located Betner Bag plants comes a complete food packaging service for all the U.S.A.

Pinpointed for service to food processors everywhere... that's the big idea behind the locating of these Betner Better Bag plants. Where do you have your business? What kind of bag do you need for your product? Betner has it... and can get it to you guickly.

Backing up our idea of what a complete bag service should be is a widely-flung sales organization, one or more members of which are near you. Betner Bags are, in effect, as close to you as your classified directory.

Be sure to visit Booth 506 at the AMA Packaging Exposition to see how Betner's Better Bags Build Business

safely in one of these types of bag Coffee Sugar Flour Potato chip Prepared mix Gelatin dessert Specialties And Many Others Betner bags are "proofed" against ... moisture-vapor insects grease water sifting Many Betner bags are THERMOSEAL*-ed This is our patented, heat-sealed closure which gives up to 20% greater protection.

Benj C Betner Co DEVON, PA.

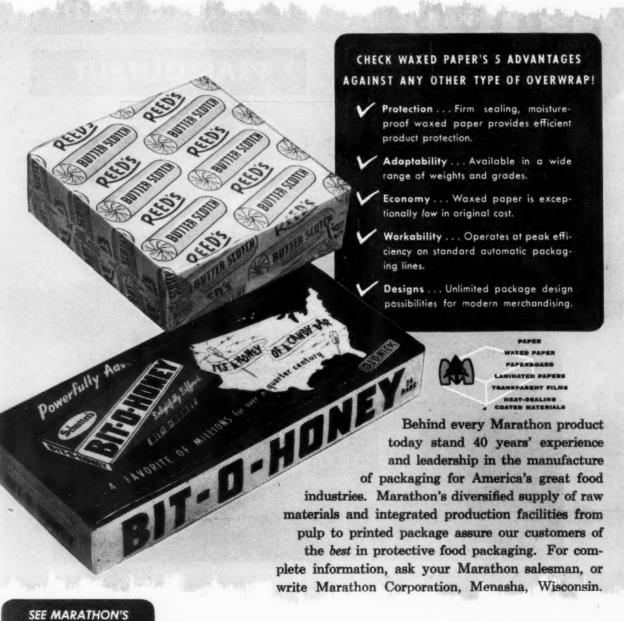
CAMP BETNER CORP., Richmond, Va.; BENJ. C. BETNER CO. of WISCONSIN, Appleton, Wisconsin; SOUTHERN PACKAGING CORPORATION, Affiliate of Benj. C. Betner Co., High Point, N.C.; BENJ. C. BETNER CO., Paris, Texas; BENJ. C. BETNER CO. of CALIFORNIA, Los Angeles, California.

A complete bag service—from idea to finished bag to machinery for closing coffee bags and filling and closing liner bags for cartons.

Marathon Waxed Paper Overwraps

Deliver the goods FRESH!

Marathon Waxed Paper Overwraps answer every requirement for modern, efficient outer wrapping of packaged candy units. Laminated, heat-sealing waxed paper guards freshness and flavor from plant to distributor to retailer. Brilliant, cleancut printing on waxed paper's glossy, pure white opaque surface assures quick, easy brand and contents identification at all times.



EXPOSITION MAY 10-13, 1949



GING

BOX PRODUCTION AT 4500 SHEETS PER HOUR

FEATURING

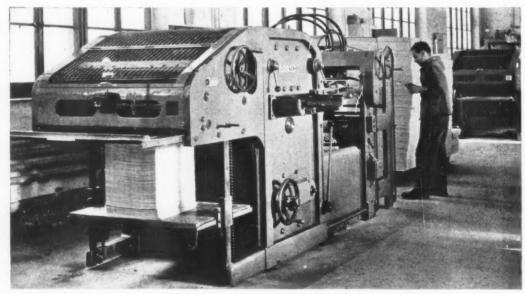
- **ACCURACY**
- **BETTER QUALITY**
- **PEAK OUTPUT**

Rapid, dependable Cutting and Creasing . . . automatically . . . is yours with the BOBST Autoplaten. Hundreds of these machines in use prove that it provides box makers with the best Cutter and Creaser it is possible to build . . . one that delivers better work faster and more dependably over a period of many more years than any other machine on the market!

In every aspect . . . construction . . . register . . .

feed mechanism . . . control . . . delivery and ease of handling . . . the Autoplaten incorporates many new engineering principles. Elimination of all tapes through use of an endless chain with gripper bars guarantees accurate sheets at unusually high production speeds.

Specifications and production figures are yours for the asking.







H. H. HEINRICH

200 VARICK STREET, NEW YORK 14

INCORPORATED

It's a smooth route to SALES...



for LINCOLN HIGHWAY CIGARS in their new shock absorber box

Delivering cigars from factory to retail counter in A-I condition is a major link in merchandising. National Cigar Company of Frankfort, Indiana, now gives its Lincoln Highway Cigars the benefit of delivery in a new over-wrapped folding carton.

Though only half the weight of the traditional type of cigar box it provides full protection to its contents. A major advantage is its shockabsorber effect. Under impact or slight distortion its resilient structure gives slightly and

NG

quickly returns to its original shape without splitting, cracking, or taking a permanent warp. This carton was adopted only after a strict and thorough program of testing which included strength tests, packing tests, storage tests, shipping tests, and sales tests.

This improvement in cigar packaging has been made possible by the complete and coordinated facilities of PLANNED PACKAGING — including research, development, design, testing, board manufacture, and conversion.



The Ohio Boxboard Co.

RITTMAN, OHIO

Manufacturers of paperboard, folding boxes, corrugated and fibre shipping containers, and converted specialties.

SALES OFFICES: RITTMAN • AKRON • CUYAHOGA FALLS • TOLEDO • CLEVELAND

CINCINNATI • COLUMBUS • PITTSBURGH • NEW YORK • CHICAGO • Capacity 500 tons doily



Shelfline containers can be made in Emerald Green, Flint or Amber and in a range of 12 capacities requiring only 4 cap sizes.

Why Duraglas Shell * bottles are ideal all-purpose containers

—all-purpose Duraglas Shelf-line containers offer you these specific advantages:

for dramatic, sales-attracting label design.

fit snugly together, take less packing, storage and shipping space.

gain related appearance, all benefit from the advertising and promotion you do for any one.

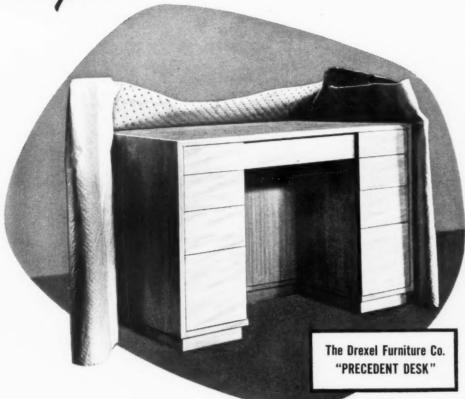
containers feature light weight, strength, accurate capacity, meet high-speed filling and labeling requirements.

*Registered trade mark of Owens-Illinois Glass Company.

- PROTECTORS OF QUALITY

OWENS-ILLINOIS GLASS COMPANY . TOLEDO I, OHIO . BRANCHES IN PRINCIPAL CITIES

Kimpak Float Packaging



Cuts shipping costs — reduces damage in transit!

KIMPAK* offers revolutionary advantages to help solve your packaging problems. It provides a more effective cushion against shock than most bulkier materials. What's more, the neat, compact rolls are so easy to apply, so light in weight, it's more economical to use.

KIMPAK looks smart—adds to the eyeappeal of your product. It's clean, odorless, safe to handle, too. And KIMPAK protects against scratching, chafing or pressmarking, so finely finished articles are assured of safe delivery.

Try "Float Packaging" at your first opportunity. Whatever the job—KIMPAK will do it. In fact, there is a specification of reliable KIMPAK to meet every requirement of the four basic methods of Interior Packaging... Surface Protection, Flotation Packaging, Blocking and Bracing, and Absorbent Packaging.

VISIT OUR BOOTH at the National Packaging Exposition, May 10-13, 1949, Atlantic City, New Jersey, Space No. 320.



1. Thick blanket of Type 500 KIMPAK, backed with Kraft paper, is wrapped completely around the Drexel Precedent desk.



2. KIMPAK guards all finished surfaces from damage by scratching, rubbing and pressmarking.



3. After KIMPAK is taped securely in place, the corrugate shipping container is fitted over the wrapped desk.



4. Completely packaged, the desk is now safely protected against the hazards encountered in handling, storage and shipping.

All photographs courtesy of Drexel Furniture Co., Drexel and Morganton, North Carolina.

Kimpak REG. U.S. PAT. OFF. & POPEIGN COUNTAIRS

Kimberly Clark RESEARCH

CREPED WADDING

*T. M. Reg. U. S. & Can. Pat. Off.

FREE BOOKLET

KIMBERLY-CLARK CORPORATION Neenah, Wisconsin

Please send me free, the illustrated KIMPAK packaging guide.

Name MP-449

Address

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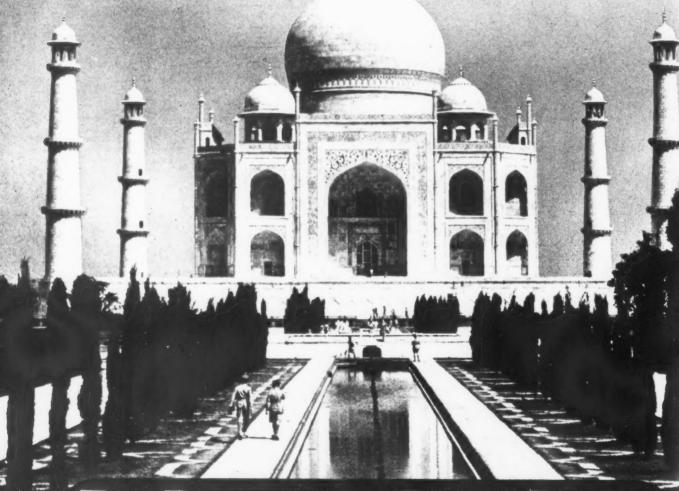
unseen

You can't see them — the foundations, props and underpinning behind the facade of the world's most beautiful building. Yet due to the care of its master designers in selecting only the finest structural materials, the Taj Mahal has resisted the ravages of the elements for three centuries with beauty unimpaired.

In the same way, it is the quality of the boxboard foundation that contributes to the exquisite appearance and enduring strength of fine set-up boxes. Insure the permanence and beauty of your box creations by specifying Royal Satin, the finest paperboard ever produced for quality boxes. Characterized by great strength, high finish and uniformity, Royal Satin provides a solid, clean-cut foundation that makes finished boxes look better and last longer — in transit, on the counter, in the home.

Besides being creators of Royal Satin, Butterfield-Barry is America's oldest distributor of all grades of quality set-up and folding boxboard.

Specialists in sheet lining. Book, news, litho and fancy papers. Lining two sides in one operation. TREDONIA lined board for moisture and grease-proof packages.



THE BUTTERFIELD-BARRY Co., INC.

The Oldest Name in Boxboard... Established 1853







Quick moving and highly competitive markets of today develop many packaging problems for manufacturers who must have flexibility and economy of operation.

Knowlton's research and engineering staff has simplified the fast production of accurate, uniformly scored paper box blanks with the Knowlton High Speed Double Scorer.

This rugged machine will enable box makers to keep pace with every practical idea of their alert production and packaging experts.

If high labor costs and rising prices of packaging materials are starting worry wrinkles, bring your questions to Knowlton for its expert counseling.

The proudest boast of the diversified Knowlton line of packaging machines is that they will do the job at hand and are ready for any job in the future—better and quicker and cheaper than any other.

A KNOWLTON MACHINE FOR EVERY NEED

SET-UP BOX

SINGLE & DOUBLE SCORERS
SINGLE AND DOUBLE ROTARY CREASERS AND CUT-TERS

SINGLE AND DOUBLE CORNER CUTTERS
SINGLE STAYERS (ALL SIZES)
UNIVERSAL*COVERERS, POWER (ALL SIZES)
HAND POWER COVERERS (ALL SIZES)
BENCH COVERERS
TOPPERS (ALL SIZES)
SLITTERS AND REWINDERS
FLANGE BENDERS (AUTOMATIC)
GLUE POTS

PAPER TUBE & CAN

AUTOMATIC CONVOLUTE PAPER CAN WINDERS SPIRAL WINDER (LIGHT AND HEAVY WALL) SPIRAL CUT-OFFS TUBE RECUTTERS LAP TUBE ROLLERS

SHIPPING CONTAINER

ROTARY SLITTERS & CREASERS HEAVY VERTICAL SLOTTERS HEAVY BAR CREASERS PARAFFINE COATERS

BOSTON 627 Massachusetts Ave. (ARLINGTON)



BROOKLYN

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TORONTO, CAN

Pacific Court Representatives
H. W. BRINTNALL CO.
Lee Angeles, San Francisco, Sentile

ROCHESTER, NEW YORK

Multi-Color Gravure

With SPEED and PRECISION

A FEW SPECIAL **FEATURES**

ensuring completely clean stock throughout the printing process



Easily accessible printing heads give ease of inspection and cylinder changing.



Self-contained motor-driven ink pump and container can quickly be removed for cleaning or changing color.



Unit design with mini-mum web travel and maximum operating

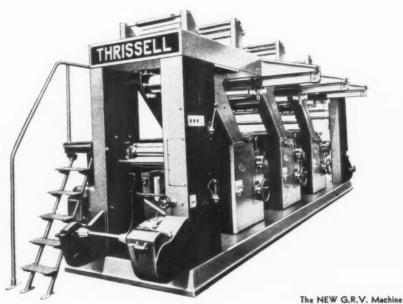
Continual research and development over many years have placed Thrissells' ahead in the multi-color gravure machines.

Simplicity and economy are the keynotes of this new Thrissell product. It is unit constructed. Any number and combination of units with either topside or underside printing can be supplied.



We have incorporated all that is good in our past long experience, and by conforming to the design and manufacture of modern practice of simplification and clean design a machine

> of unique value to producer and operator has been evolved. There are 30 interesting new features. Write now for our illustrated brochure giving full details.

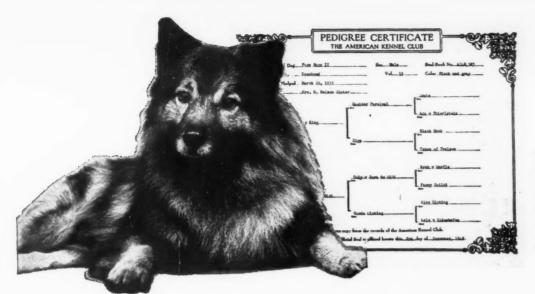


The

THRISSELL ENGINEERING COLITI

EASTON ROAD. BRISTOL 5. ENGLAND.

A



THE KEESHOND comes to us from the Arctic, via Holland where he is very popular. A close relation of the Chow and the Eskimo Dog, many consider him more beautiful than either, with his heavy coat of silvery gray with black tips.

Experienced Buyers look at the Pedigree— Buyers of Boxes, too!



A BOX with a pedigree has outstanding reputation and resources behind it. That's why—

Procter & Gamble, makers of the famous Oxydol soap powder, trust their products to Union corrugated 100% Kraft boxes.

Experience of 75 years undisputed leadership in paper packaging goes into Union boxes. Every step in making, from tree to finished box, is quality-controlled by one management in America's largest integrated pulp-to-container plant.

Vast forest resources, four modern box plants, and five of the nine largest paper machines in the world are your guarantee of consistent quality, consistent service and fair price, today and in the future.

That's the pedigree of Union boxes. That's why, every month, more makers of famous brand products are using them.

UNION Corrugated Containers UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N.Y.

Corrugated Container Plants: SAVANNAH, GEORGIA · CHICAGO, ILLINOIS · TRENTON, NEW JERSEY

ING

CARR-LOWREY

distinctively designed

STOCK BOTTLES

These are just a few of the Carr-Lowrey stock bottles that have proved very popular. If you are interested in seeing additional styles, or bottles for other types of products, our representatives will be glad to make suggestions from our extensive line.





No. 368— 3^{3}_{16} dr., $1/_{2}$ oz., 1 oz., 2 oz., 3 oz., 4 oz., 6 oz., 8 oz., 16 oz. Also made in Squat style in 1 oz. and 2 oz.



No. 424—1 dr., 2 dr., ½ oz., 1 cz., 2 oz., 4 oz., 6 oz., 8 oz., 16 oz. and 1½ oz. Sachet.



No. 404—1/2 dr., 1 dr., 2 dr., 1/2 oz., 1 oz., 2 oz., 4 oz., 6 oz., 8 oz.



No. 377—Hand Made, Glass Stoppered—2 dr., 5 dr., 10 dr., 4 oz.



No. 433—Tall Cylinder—4 oz., 8 oz., 16 oz.



No. 431—1 dr., 2 dr., ½ oz., 1 oz., 2 oz., 3 oz., 4 oz., 6 oz., 8 oz., 16 oz.



PROVING-GROUND FOR A STURDY PACKAGE

The aluminum walls of Alcoa Tubes are supple, yet tough. Under squeezing . . . folding . . . twisting . . . aluminum tubes are less likely to split or puncture, as millions of users know. What's more, Alcoa Tubes are less likely to become distorted in handling, boxing, or shipping. A four-fold clipless closure will stand internal pressures developed under all normal conditions of handling and use.

Like to know more? Ship us a sample of your product. We'll turn it over to our Packaging Laboratory for full testing to determine its suitability for packaging in Alcoa Tubes. Glad to do it, with no obligation to you. Address: Aluminum Company of America, 2129 Gulf Building, Pittsburgh 19, Pennsylvania.

Advantages of Alcoa Aluminum Tubes

- Non-toxic
- Smart Appearance
- Easy Dispensability
- Good Economy
- Greater Strength
- Light Weight



Free Booklet! "Packaging in Alcoa Aluminum Tubes" describes filling and closing operations; gives weights and capacities of tubes; lists standard sizes, dimensions, and tolerances and has many more pages of important information. Write for "Packaging in Alcoa Aluminum Tubes", today.







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Don't let moisture or grease get the best of your wrappers

Does your product contain moisture? Does it contain fat or grease? Then Patapar Vegetable Parchment is the wrapper for you. Patapar has high wet-strength. It resists grease. Its clean, strong, white folds will help keep your product fresh and appetizing.

Patapar is furnished plain or printed with your brand name and a colorful design.

Want us to create a printed Patapar

wrapper for you?

Patapase-Resisting Parchment

Patapar is ideal for:

Butter wrappers
Ham boiler liners
Deep freeze wraps
Fish wrappers
Can liners
Oleomargarine wrappers
and hundreds of other uses

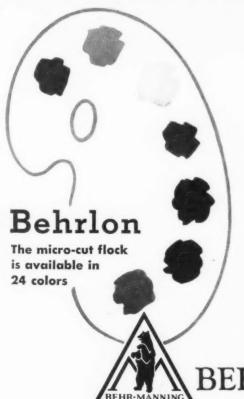
Paterson Parchment Paper Company • Bristol, Pennsylvania

Headquarters for Vegetable Parchment Since 1885

WEST COAST PLANT: 340 BRYANT STREET, SAN FRANCISCO 7, CALIFORNIA SALES OFFICES: 122 EAST 42nd ST., NEW YORK 17, N.Y. • 111 WEST WASHINGTON ST., CHICAGO 2, ILL.



BACKGROUND for Elegance



Against the richness of a BEHRLON finish, this table lighter of classic design, by Dunhill, looks what it is—the ultimate in quality.

BEHRLON, the micro-cut flock coating, is the setting which brings out beauty and drives home the sales urge for a constantly increasing number of top-flight products. Its uniform richness as a package-beautifying material is matched only by its high resistance to damage and wear. BEHRLON flock is made of the new rayon, precision-cut in two lengths (1/16" and 1/12") in twenty-four attractive colors, and processed for easy application mechanically or with spray guns. It is also available in ten colors of TUFKOTE BEHRLON, for coatings requiring extra marproof qualities.

The BEHRLON coated paper used so effectively in this Dunbill package is supplied by the Flock Embossing Corporation, 598 Broadway, New York 12, N. Y. to the paper merchant, Lowellite, Inc., 420 Lexington Ave., New York 17, N. Y.

Check on BEHRLON coatings now. Get the interesting catalog with samples in full color range. Learn how much—and how economically—BEHRLON would improve your package. For detailed information on the application of BEHRLON to your specific need, use the expert cooperation of our Products Engineering Department.

BEHR-MANNING, TROY, N.Y.

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Artist - Cecil West, native of Tennessee

 ${\sf TENNESSEE-annual\ purchases:\ \$1\%\ billion-mostly\ packaged.}$

CONTAINER CORPORATION OF AMERICA





THE 1950 MODERN PACKAGING ENCYCLOPEDIA...

HERE ARE THE PROOFS...



it is America's only packaging encyclopedia

That's right. The men who put America's products into packages have got to use the only annual source book serving the field that gives them complete data on every phase of packaging.



it is the "Bible" of package men

... and has been, year after year, since the original 1929 edition. It is written by packagers, for packagers in every line of business.



it covers all aspects of packaging

... and, as a result, it is constantly *in action* on the desks of its readers. They call on it to tell them, for example.

how to design a package what competition is doing what packaging material to use where to buy what are legal require-

ments

how can packaging costs be cut how to prevent product spoilage what closure is best which labelling method whose package machinery the only complete
packagers' buying guide

It is tailored specifically to the needs of buyers of packaging supplies, materials, machines, equipment, and services. The Buyers' Directory is thoroughly overhauled annually — good reason why packaging men religiously subscribe to the Encyclopedia edition after edition.



circulation blankets the field

MODERN PACKAGING ENCYCLOPEDIA reaches every large company in the 45 industries that produce more than 90% of the nation's packaged products.



it reaches the men who buy

The 10,000 readers are the men who make packaging decisions in every industry that produces packaged products, in every major company that makes containers or their components for re-sale, and in every plant that makes packaging machinery and supplies.

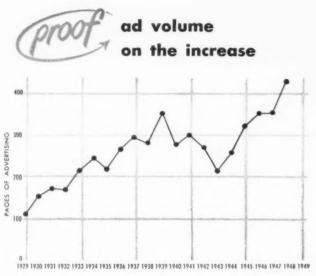
A Breskin Publication
122 East 42nd Street, New York 17, N. Y.

MODERN PACKAGING

reserve advertising space now

the most powerful single selling force in the 5 billion dollar* packaging field

*figured by U.S. Dept. of Commerce





major advertisers rely on it

The leading suppliers to the field deem Encyclopedia advertising indispensable to successful coverage of the market. Many of them have records of uninterrupted advertising year after year since. 1929. 364 firms placed their sales messages in the 1949 edition.



ENCYCLOPEDIA

DON'T DELAY! ACT NOW!

Remember, your advertisement in the 1950 edition gives you direct and continuous contact with your prospects and customers in the packaging field for one full year. Remember, too, that it will be placed next to a section containing related editorial matter . . . That's double insurance, not only that your ad will be read, but that it will be seen at a moment when reader interest is at its height.

But don't delay—space reservations can only be accepted for a short time longer. So fill out the coupon now to get complete information, *plus* reservation form, *plus* latest ABC statement.

FREE BOOKLET

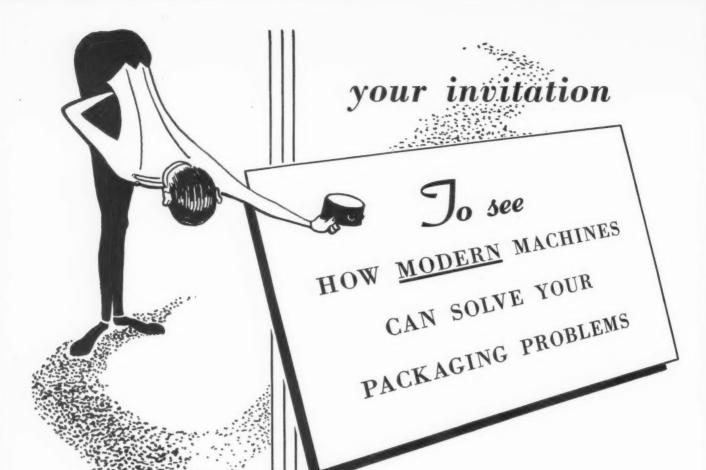
MODERN PACKAGING ENCYCLOPEDIA 122 East 42nd Street

New York 17, New York

Send me at once the free 16-page booklet describing the 1950 MODERN PACKAGING ENCYCLOPEDIA. Include rate card and latest ABC statement.

COMPANY_____STREET_____

JIAIC____



We want to show you the COMPLETE profit-building features of Beck machines...what goes into their manufacture and design...how each production step is calculated to give you the utmost in cutting efficiency...the speediest in delivery. In short, we want to show you the works.

Our products and our plant have been streamlined. The most modern equipment—functional color on both our plant interior and on our products—our assembly line is illuminated with better than the best daylight visibility.

Since you'll be practically in our backyard when you visit the Packaging Show anyhow—why not stop in and discover how Beck machines are built to put PLUS in your profits.

to put PLUS in your profits.

CHARLES BECK MACHINE CORPORATION

13th and CALLOWHILL STREETS, PHILADELPHIA 8, PA.

AUTOMATIC ROLL SHEET CUTTER

ELECTRIC EYE CUT

REGISTER SHEETER

AND REWINDER

AND FOLDER

RAZOR BLADE SLITTER

SHEETER-PRINTER FOR SAMPLE BOOKS

ENGRAVED ROLL PRINTER
BURLAP BAG CUTTER

but UNI-MARK

fabricated * leather

works wonders every day

Perfect for jewelry, cosmetic, pen and pencil cases and many other attractively packaged products.

Every day manufacturers are profiting from the versatility, adaptability and workability of the sensationally new UNI-MARK Fabricated Leather. It looks like leather, feels like leather, wears like leather and contains leather fibers, vet it costs much less than leather.

There's never been a material like it before.

- Extremely Durable.
- Cuts Perfectly—No Waste.
- High Tensile and Abrasive Strength.
- Odorless.
- In Large Sheets or Rolls.
- · Every Color, Grain and Weight.
- Prompt Delivery.

Samples on request.

P. S. Do you manufacture extremely low priced merchandise? Then we suggest UNIHYDE—made exactly klike Fabricated Leather without leather content and lower in cost.







* Composed of approximately 40% ground leather by volume, plus other ingredients

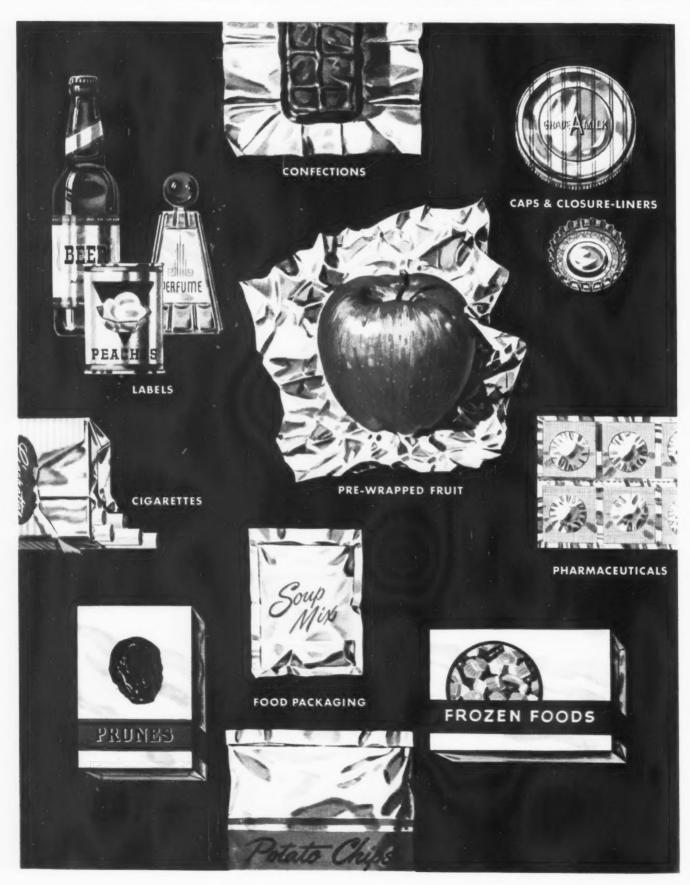
* Reg. Trade Mark.

New York: 450 Fourth Avenue

Boston: 114 South Street

Agents in all principal cities.

NOW! A NEW SOURCE OF



QUALITY ALUMINUM FOIL!

Permanente Metals opens first aluminum foil plant in the West. Assures Manufacturers and Converters, wherever located, a steady supply of plain Kaiser Aluminum Foil in thicknesses of .006 to .00025, available in rolls up to 30½ inches wide.

Located at Permanente, California, Permanente Metals' aluminum foil plant is the first of its kind in the West.

Purchased from the Foreign Liquidation Commission under the German reparations agreement, it has been rebuilt, modernized, and equipped with the finest precision machinery.

Now manned by highly skilled personnel, it is turning out plain aluminum foil of a quality and uniformity unsurpassed by any other plant in the country.

Quality and Service stressed

Because Permanente Metals' integrated operation assures complete control of every step of production—

from bauxite to finished foil—you can be sure not only of consistent quality, but also of reliable service.

The production of aluminum foil marks another step forward in the nine year growth of Permanente Metals ... a company which now produces almost as much aluminum as the entire industry produced just ten years ago.

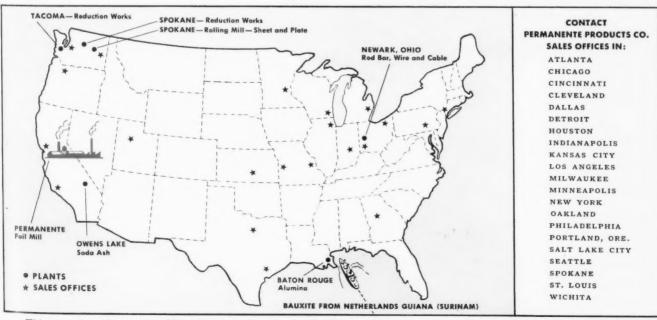
In achieving this, Permanente Metals has won the loyalty of thousands of U. S. manufacturers by setting high standards in the industry for the quality of its metal and the dependability of its service.

As a source of foil—Kaiser Aluminum Foil—these same standards will be consistently maintained. An inquiry by you and we'll demonstrate what we mean.

Permanente Metals

PRODUCERS OF

Kaiser Aluminum Foil



This map shows Permanente Metals' integrated production facilities, which assure you consistent quality and dependable service.

Guardianship

Most difficult of the many penalties of leadership is the guardianship of standards.

To pattern after a leader is normal. For it is the leaders who pioneer and show the way . . . who establish the precepts and standards of practice. But they who would profit through lip service only, to those standards, steals but momentarily that which enriches them not and, denies the mantle of respect under which cover is furtively sought.

But, for that interim period during which the mills of the Gods are grinding slowly, and exceeding small, and the inexorable and inescapable working of the laws of reputable behaviour have imposed their sentences, it is hardly fair that the buyer of a product should invest under the mask of misapprehension so cunningly fabricated for his confusion.

So, certain deterents in the form of patents, copyrights, trade names and trade marks were devised.

Therefore when we stress the fact that the name TUPPER (in either of the two forms you see here) is at once a trade mark . . . a trade name and so say, in effect, "this is our pledge that we will keep faith with you", it is an acceptance and acknowledgment of our obligation to shoulder our share of the burden of guardianship of standards for your protection.



This smart table setting with TUPPERWARE pictures a breakfast table that says "Good morning" and means it. This is as it appeared in the article "Housewares Award" to Tupper Corporation in the September 1948 edition of Modern Plastics.



Bearing the name TUPPER are many items, designed for and accepted as, definite contributions to the American way of Life. These same pieces possess like attributes when employed in the packaging of equally worthy products and greatly enhance their "buy" appeal. But if, after discussion with our Development Department, you feel your packaging requirements would best be served with a specially designed container you may be assured it will be endowed with identical values.

TUPPER CORPORATION

Manufacturers of better plastic - CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

FACTORIES: Farnumsville, Mass., and Cuero, Texas

New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Development Department A, CUERO, TEXAS

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Do not buy Plastic Products just as a substitute for something else.

Do buy them because they do so many jobs so much better.



richardson taylor-qlobe corp.

cincinnati 32 · ohio

creators · designers · manufacturers of folding cartons

HILCOTUF . . . represents an achievement in creative production and "imagineering" which has long been a challenge to the industry . . . That, of producing a protective laminated paper with strictly nonstaining qualities, plus an inherent tensile strength so necessary to security packaging. Developed by our own laboratory technicians and design engineers, ThilcoTuf features an "exclusive" blond elastic laminant. This, combined in a double coating process with two sheets of tough, durable kraft, not only solves the problem but provides the packer and shipper with a miracle paper wrap. ThilcoTuf eliminates entirely the danger of stain due to "bleeding" of residual oils present in most duplex laminated papers. In addition, it is re-

NOW- FOR THE FIRST TIME
... an amazing, new protective packaging miracle...

NON-STAINING

DUPLEX PROTECTIVE WRAP

WITH

Blond Elastic Laminant

Write today for samples and complete descriptive details.

sistant to grease penetration under certain conditions. ThilcoTuf can be tailor-made to your own specific requirements . . . Our modern manufacturing facilities are specially designed to produce widths up to 120 inches in all grades and types — with or without reinforcement. The ideal protective wrapper for thousands of uses in business and industry, ThilcoTuf warrants an immediate investigation for the safeguarding of your products both in storage and in transit.

- Exclusive Thilco non-staining blond laminant.
- Flexible and stainproof even at extreme temperatures.
- Available up to 120" widths without seam.
- It's tough . . . twist it! Pull it! Just try to tear it!
- Non-tearing reinforced edges.
- Choice of grades and types . . . with or without reinforcements.
- Flex it fold it bend it without cracking or tearing.

Timeso Junctional

PAPERS

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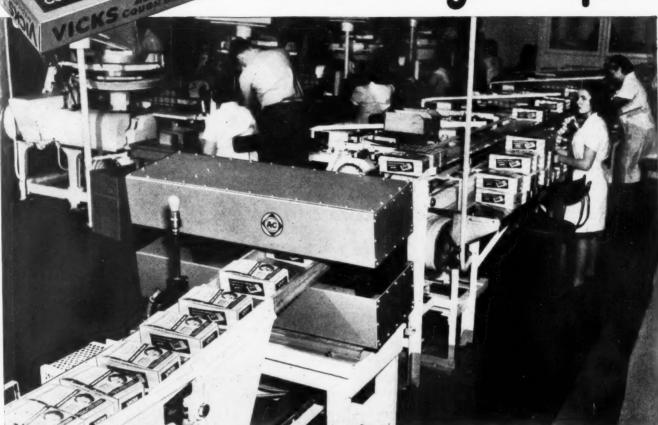
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ASPHALT WATERPROOFS . GLASSINES & GREASEPROOFS . WAXED . PRINTED . EMBOSSED . SPECIALTY KRAFTS . CUSTOM BAGS

Why Stray Metal Can't Get Into Vicks Cough Drops



ELECTRONIC METAL DETECTOR KEEPS CONSTANT WATCH OVER PRODUCTION LINE

VERY PACKAGE SCREENED by a high frequency magnetic FVERY PACKAGE SCREENED by a might house packag-field! Visual inspection and sorting, counting and packaging come first . . . then the cough drops pass through the inspection aperture of the Metal Detector. The Vick Chemical Co., using Metal Detectors in both its Philadelphia and Greensboro plants, knows this is real insurance for their reputation, as well as a guarantee of product purity.

Many other manufacturers . . . food, plastics, tobacco, rubber, etc., also use Allis-Chalmers Metal Detectors for protection against damage to processing equipment and resulting loss of production time.

They will spot magnetic or non-magnetic particles as small as .039 in. in diameter, regardless of how deeply imbedded in the material they are. If you're interested in applying the Metal Detector to your process, contact our representative in your nearby A-C sales office, or write direct.

ELECTRONIC HEATERS AND METAL DETECTORS FOR INDUSTRY

*The Metal Detector was developed by RCA Victor. Now, however, RCA's high frequency heating and metal detection equipment has been

Allis-Chalmers line. Thus, the combined electronic experience of two great companies is now available to meet the needs of industry.

ALLIS-CHALMERS, 1124A SO. 70 MILWAUKEE, WIS. Please send me more information on:



METAL DETECTORS

Protect product

Brazing, solder-ing, hardening, annealing, 1 through 200 kw.



DIELECTRIC HEATERS

Wood, plastics, textiles, sand cores. 100 w

Company.....

....State...



THESE dolls are a sell-out everywhere because of the life-like appearance and "latex skin" that feels almost like nature itself—thanks to the Anode process!

This patented process is used to produce such diversity as surgical gloves, sinus masks, dish drains and even duck decoys. These are only a few of the articles made by this remarkable process...hundreds are possible. Perhaps you have an idea or product that can be made profitable by the Anode process.

what the Anode Process is

It's a patented method whereby latices and mixes are deposited and converted to solid materials—on a wide variety of forms. The process is available to prospective manufacturers under a simple and generous licensing arrangement.

American Anode offers complete service

American Anode is fully equipped to do a complete job for you in our own factory. We have the latices and mixes. We have the equipment and the trained personnel. If you prefer, our engineers can set up the Anode process in your plant, supply the materials and technical advice—even machinery.

If your products are in the textile, paper, toy manufacturing, or electro-plating fields—check with American Anode. American Anode Mixes can be compounded in a rainbow of colors. They can be sprayed, spread, saturated, dipped or brushed and they can be compounded to meet a wide variety of service conditions.

We may be able to help you improve your products or produce new ones at lower cost. For complete information write to Dr. R. V. Yohe, President, American Anode Inc., Dept. AC-2, 60 Cherry Street, Akron. Ohio.

a new Plastisol... AMERAN resin paste

Can be used to make coatings or flexible sheets which maintain permanent lustre. No solvents; no fire hazard; no recovery problem. Can be made oil-resistant, acid-resistant, chip-proof. Full variety of colors, including white.

Ideal for coating metal and wire, wire baskets, plating racks, pipe linings, wood, textiles and paper . . . for making dipped gloves, toys and dolls, film applications . . . for casting or molding.

AMERICAN ANODE

CRUDE AND AMERICAN RUBBER LATICES, WATER CEMENTS AND SUSPENSIONS

BAG PACKAGING

HEAVY DUTY MULTI-WALL SACKS

Equitable's variety of styles and sizes made possible by their engineering know-how, means increased operating efficiency for you at reduced operating expense.

PASTED OPEN MOUTH SACKS

2-3-4 and 5 wall construction. Ideal for bulky and/or coarse grained commodities such as Rockwool, Coal, Charcoal, Ice and Sugar to name but a few.

SEWN OPEN MOUTH AND SEWN VALVE BAGS

3-4-5 wall construction. Special combinations of different grades of papers to meet specific packing requirements. Especially designed and constructed for packaging and shipping fine grained materials such as chemicals, fartilizers consent of:

SHIPPING CONTAINER SACKS

For use as shipping containers to replace cartons for packaging and shipping small consumer packages. Sacks take up less storage space, require less handling and most important, the initial cost of a sack is lower than that of a carton.

SELF-OPENING DUPLEX

Ideal packages for Sugar, Rice, Granular products. Special Paper combinations to suit particular requirements.

LINERS

Pratect your products against moisture, vapor, dust and dirt, oils and greases, property and inexpensively, through the use of Equitable liners.

to fit every need...

Requests for special bags! We get hundreds of them. Usually we come up with a bag or a sack designed to fill the bill. From the making of the paper to the shipment of your bags, you save when you buy from Equitable as a result of our completely integrated facilities. From clear Cellophane bags to be chock full of candy, to Multi-wall sacks to be blown full of Rock Wool Insulation it pays to get an Equitable quotation. Our own Paper Mill — Two large plants, Modern Printing Equipment are all at your service.

QUALITY . ECONOMY . SERVICE

Cornerstone of EQUITABLE Production

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PAPER BAG COMPANY

47-00 THIRTY-FIRST PLACE . LONG ISLAND CITY 1, N.Y.

CELLOP Transp by Equ product

CELLOPHANE AND GLASSINE BAGS

Transparent film packaging by Equitable translates your product's eye-appeal to "buy-appeal" — keeps freshness and flavor in — dust and moisture out.



Equitable fabricates a variety of inner bags that can be treated to insure high protection against moisture—vapor, dust and dirt, and to resist oils and greases.



1999

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THE goodwill, patents, inventory and certain assets of the Arthur Colton Company have been purchased by Snyder Tool & Engineering Company of Detroit which will operate the Colton Company as a subsidiary under the Colton name.

Operation will be transferred to the large, new Snyder plant where there is every modern facility for building fine machines for many fields of manufacturing and packaging.

Administration will be in the hands of an executive combination merging the specialized experience of the engineering, sales and manufacturing departments of the 65-year-old Colton Company with that of the 25-year-old Snyder Company in order to provide a service of outstanding worth to Colton clients throughout the world.

ARTHUR COLTON COMPANY

DETROIT, MICHIGAN

Portion of a Marvellum Design used by a leading department store in the southwest.

America's

smartest packages wear MARVELLUM Papers

It's an imposing list, the names of Marvellum Box Paper users: Cannon, Yardley, Pro-phy-lactic, Eaton, Norcross, Florsheim - just to name a few. These packagers of everything from towels to toothbrushes are wise to what clicks with buyers . . . to what's least expensive in the long - or short - run.

> Ask your nearby Marvellum distributor for swatches and test-run sheets or write direct to The Maryellum Company, Holyoke, Massachusetts.

MARVELLUM Box Papers Distinctive

Outstanding Catalog Covers

SING

It's Your Move! Step ahead of competition!



There is a size, a style and a closure-type suitable for hundreds of different products, all of which do a *better* selling job, because they impart modern *beauty*, modern *protection* obtainable only in the perfect PLASTIC package:

Clearsite*

Transparent or opaque, printed or plain, rigid or flexible, these containers are made in all thermoplastics by Celluplastic Corporation, 54 Avenue L, Newark 5, New Jersey.

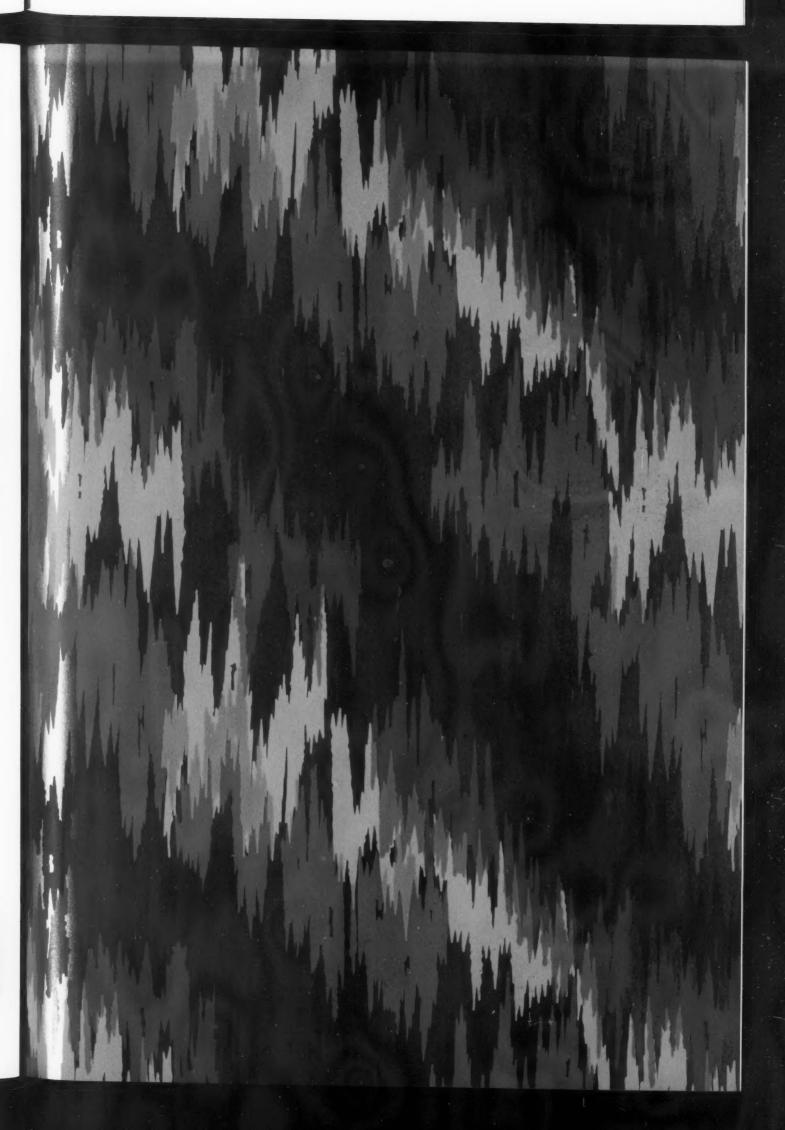
It's a move in the right direction to send for a sample of appropriate size and see how YOUR product is enhanced in a lustrous and colorful CLEARSITE

shatterproof container.

*Reg. U.S. Pat. Off.

Celluplastic Corporation

AMERICA'S #1 SOURCE FOR PLASTIC CONTAINERS



Introducing

NORTHERN LIGHTS

You'll be pleased to meet this latest, smart addition to the Kupfer line. It's an easy-on-the-eye, sophisticated design ... not too bold ... ready to complement fine merchandise.

There are II modern color combinations in which you can get Northern Lights - all printed on highly workable paper. Advance scheduling at our mill assures a continuous supply of rolls and standard size sheets.



Send for samples and prices today.

KUPFER BROS. CO.

4 ASTOR PLACE, NEW YORK 3, N. Y.

Manufacturers of Surface Coated Papers Since 1845

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BENSING Bros. and DEENEY

invites you to meet

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USE BBD
ANILINE INKS
TO MAKE YOUR
PACKAGES SPARKLE



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LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD
401 N. BROAD STREET, PHILADELPHIA 8, PA.

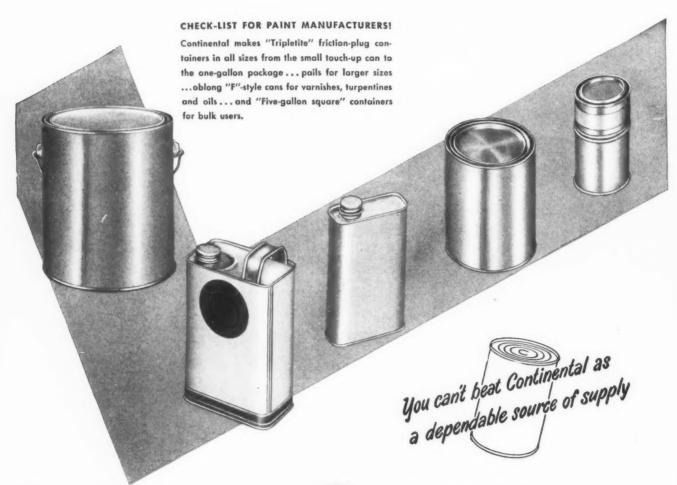
CHICAGO

WAKEFIELD, MASS.

LOS ANGELES

Check with Continental Continental

- Check the dependability of supply that Continental assures users of cans.
- Check Continental's speed of delivery
- Check Continental's service service that may save you money by suggesting improvements in your present packaging operations.
- Check Continental's record on research and product development.
- "Check with Continental" before making any decision affecting your supply of cans. It costs nothing, may mean much!



CONTINENTA

CAN COMPANY

NEW YORK 17, NEW YORK

PLAS-TEX

PLAS-TEX MOLDED PLASTIC

Plas-Tex boxes made of durable Polystyrene and available in attractive pastel colors as well as transparent plastic. Both may be distinctively decorated or embossed with trade name or insignia.

FOR MODERN PACKAGING

Attractive boxes that your customers will save! They will act as constant advertising reminders of your firm and products! Designed for extra sales appeal for all standard items and for the efficient packaging of cosmetics, drugs, pharmaceuticals, condiments, novelties or gifts.. many other uses!

Boxes Available
For Immediate Shipment

PT-416 PRESCRIPTION boxes of durable Polystyrene. Attractive colors. 2½" x 1½" x 1½". Ideal for drugs, cosmetics, pharmaceuticals, etc. Will be kept for countless household or office uses—stamps, clips, buttons, small hardware and other items.

PT-430 KNIT KNACK box for ideal display and gift packaging of yarns, foods, etc. Oval top 5½" x.9". Depth 7¼". Standard colors. Will be kept as knitting bag, for lunches, sports bag and general carry-all.

PT-419 TI-PAK box of clear, polished styrene. Size 5" x 13" x ½". A new note in tie sales display boxes. Sold as package with ties by store. Retained as travel kit for carrying 3 ties neatly and conveniently.

PT-418 TI-PAK box, size 5"x13"x1 1-16". An ideal display box. Holds 6 fies without wrinkling in traveling.



PT-415 PRESCRIPTION boxes also available in $2\frac{7}{8}$ " x $1\frac{7}{8}$ " size. Can be embossed or decorated with your firm name or insignia. Can also be used with or without paper label inserts

PT-420 FIRST AID box in Polystyrene plastic. $4\frac{1}{2}$ " x $6\frac{3}{4}$ " x $1\frac{1}{2}$ ". Available in transparent or opaque colors. A new packaging idea that your customers will be sold on!

Prices upon request. Samples, blue

Samples, blue prints and catalog sheets available

Genuine PLAS-TEX Quality Products

THE PLAS-TEX CORPORATION . 2525 MILITARY AVENUE . P.O. BOX F . LOS ANGELES 25, CALIFORNIA . Cable address TEX-PLAS

NG

Boxes illustrated are

available for immediate

shipment. Plas - Tex is

completely equipped for

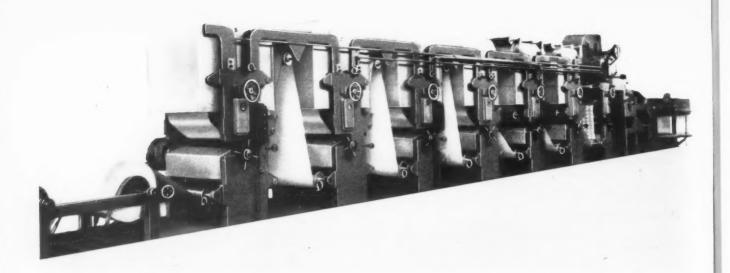
injection, compression, extrusion, metal die cast-

ing and custom molding.

Submit your special packaging problems to our designers and engineers!

PT-417 OVAL UTILITY box for packaging foods,

needlecraft items, fishing gear, etc. Clear, polished styrene. $5\frac{3}{4}$ " x 3 x $1\frac{1}{2}$ ". Retained as jewel box, sewing kit, cigarette box and many other uses.



WE MANUFACTURE

Rocket Rotogravure Presses, Laminating Machines and specialized equipment for the Converter.

WE SUPERVISE INSTALLATION

of complete Rotogravure Printing and Converting Plants.

Write for Brochure featuring Rocket Inta-Roto Presses

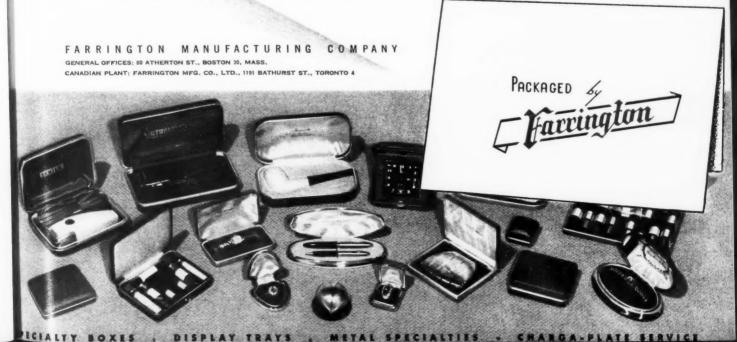
INTA-ROTO MACHINE CO., INC. R.F.D. 6, BOX 45, RICHMOND, VA.

ROTOGRAVURE PRESSES



IN A PACKAGE THAT SAYS SO

Whether your product be an expensive \$100 billfold ... a watch ... a pen ... a razor ... a sensitive gauge ... a micrometer ... the quality of fineness must reflect itself to your prospective customers ... America's most successful merchandisers — for two generations — have been aided in achieving this goal by the use of Farrington Planned Packaging ... Your product deserves it, too!

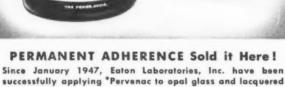






aluminum containers.

FUR AEIN SOLUBLE DRESSING





PRINTABILITY Sold it Here!

Noma Electric Corporation makes these new polystyrene toys and dresses them with gay multi-colored labels printed on *Pervenac.

For Neater, Faster Labeling WITHOUT USE OF WATER OR GLUE!

The applications shown merely suggest the diversity of dry labeling possibilities offered by *Pervenac. If you have a labeling problem requiring fast initial tack, precise registration, permanent

adherence to wet or dry glass, wood, paper, film, metal or plastics — put it up to Nashua's Sales Research Department. Write for samples.

*Trade Mark (Formerly Thermo-Kote)



NASHUA GUMMED AND COATED PAPER COMPANY

NASHUA, NEW HAMPSHIRE

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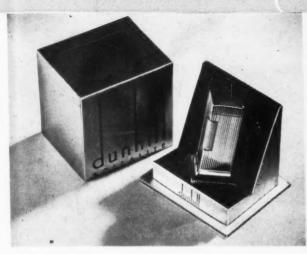
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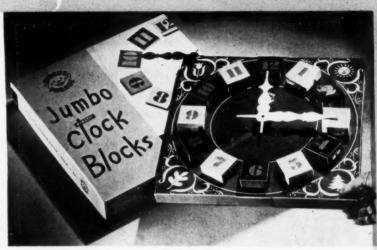
AP

packaging

Vol. 22 No. 8 April 1949



DISPLAY and gift package appeal are combined in this gold-colored-foil covered box with cleverly constructed base which permits the cigarette lighter to stand upright against a velvet-like flock background.



COMBINATIONS of set-up box and other constructions can be used effectively for sturdy, economical packages. This interesting functional toy box has a set-up cover and onepiece platform base of die-cut, folding construction for blocks.

The case for the set-up box

IT HAS SOME PRACTICAL ADVANTAGES NOT OFFERED BY OTHER PACKAGE FORMS,

AND IMPROVEMENTS IN MANUFACTURE ARE STEADILY LOWERING ITS COST

The set-up paperboard box of rigid construction has so long been established as a package form that its place in modern merchandising is far too often taken for granted—its particular advantages overlooked in the rush to newer and more novel forms.

Feeling that a review and analysis of the set-up box in the light of today's package planning would be particularly helpful, Modern Packaging has conducted an exhaustive search for typical examples that will illustrate the functions of this type of package. The search has been rewarding. While it is obvious that there are many applications in which the set-up box has no economic justification, there are literally thousands of cases in which it may prove to be the best and most economical package, all things considered. Many of these opportunities have not been exploited.

Coincidentally with the Modern Packaging study, the National Paper Box Mfrs. Assn.—trade group of the

set-up box industry—has issued a new brochure, "Versatility Gives Set-Ups Added Sales," designed "to acquaint purchasers and prospects with the manufacture, design and styles of set-up paper boxes." Its basic information has been valuable to our study. It should be "must" reading for every manufacturer of a product that is or can be packaged in a box.*

Box making is one of the oldest packaging crafts. The word box comes from the Latin, "boxus," or boxwood, from which the first boxes of wood were made. When the first paper boxes were laboriously constructed by hand, the word box continued as the designation for this type of container.

Through the years, almost every conceivable type of paperboard set-up box has been devised, limited only by the laws of geometric shapes and form. Museums

^{*} Copies may be obtained free of charge from the National Paper Box Mfrs. Assn., 1106 Liberty Trust Bldg., Philadelphia 7, Pa.

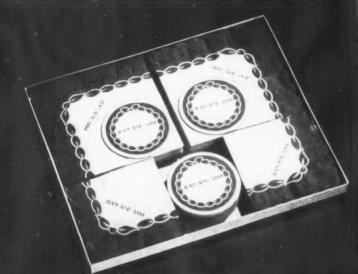


CIGAR BOX DE LUXE, designed for Webster Tobacco Co. for appeal to women shoppers as a gift package, is one any woman is pleased to let her husband keep on the living-room table. Covered with leather-grain paper, gold stamped, with hinged sleeve and metal clasp, it made a tremendous holiday hit. Without the seasonal cellophane overwrap, it's a year-around seller.



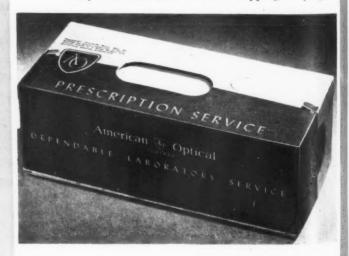
JEWELRY BOXES dramatize contents, provide interesting displays and have re-use features. Leatherette and metal box (left in photo) becomes holder for two photos with inside platform removed. Acetate cover on velvet-lined, metal-trimmed box (center) provides visibility for display. Velvet box cover (right) is reversible—medallion on the outside for display, inside when box is closed.





TRANSPARENT LID of drawn acetate is combined with set-up box base to give the product visibility and makes a sturdy package for handling.

MAILING BOXES of set-up construction have strong "muscles" when made of specially developed light-weight board of high Mullen test and covered with kraft. With wire clasps, they are ready to fill and send with no wrapping or tying.



are full of curious and beautiful examples. Boxmakers can show you early catalogs dating back to the '90s and early 1900s containing illustrations of candy, jewelry and face-powder boxes more intricate and elaborate with hand detail than any made today.

Improved manufacture

The amazing aspect of set-up box development, however, is the steady improvement in methods of manufacture that today, despite many hand operations still required, permit the user to purchase precision-made set-up boxes at prices which are often surprisingly economical. On the average, current set-up box prices are said to be only 38% above prewar levels—a conservative rise in the period of general inflation just experienced.

Progress in mass-production boxmaking began with the invention of the corner cutter machine that cut one corner from one end of a box blank and made one score in the blank. This machine was invented by Col. Andrew Dennison in 1844. Today there are machines that turn out set-up boxes completely automatically in small sizes, both round and square, which are very economical in large volume for such products as face powders, prescription drugs and certain brands of cigarettes packaged in square hinged boxes. Other types of square, rectangular and irregularly shaped boxes still require, for the most part, a certain number of hand operations.

However, the principle of Andrew Dennison's corner cutter and scoring machine has been adapted to high-speed equipment which can cut and score thousands of box blanks a day. Another significant development is the quad-stayer, which secures the four corners of a box in one operation. Just recently introduced are

The PENN LINE

SCALE PAUL ROAD

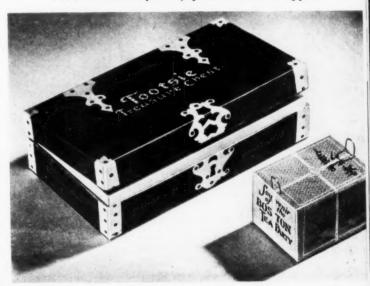
SCALE PA

FIBREBOARD PARTITIONS in full telescope box give adequate protection to the several hundred precision parts comprising this scale-model railroad locomotive which sells for around \$50.

heat-sealing quad-stayers which permit box staying with the use of thermoplastic papers. They promise to aid the boxmaker in keeping down production costs so that the set-up box can maintain its place pricewise despite mounting costs of labor and materials.

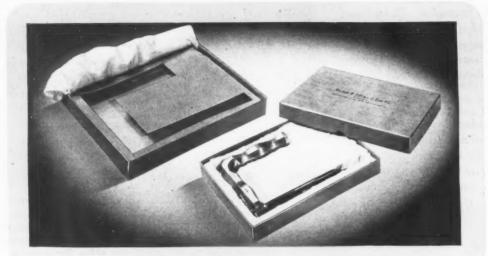
The user of set-up boxes should also have an appreciation of the improvement in quality which all this mechanical progress has imparted to the simplest of set-up boxes. Precision equipment means boxes of uniform specification, uniform dimensions, closer tol-

NOVELTY SAMPLES can be attractively packaged in set-up boxes. Tootsie Roll Chest wrapper was applied to the whole box in one operation, thus eliminating the registration problem. Box was then slit on three sides for opening, the fourth uncut side serving as a hinge. Inside shell was glued in to provide a shoulder rest for the lid. The Boston Tea Party souvenir is a small mailing box with wire clasps (lower right) covered with a specially printed outer wrapper.



INTERIOR PARTITION made of continuous strip of acetate sheet, formed automatically, greatly simplifies packaging of suppositories. By this method, Sharp & Dohme was able to eliminate previously used individual wrappings. Druggist is provided with prescription package by removing printed sleeve from telescope set-up box.



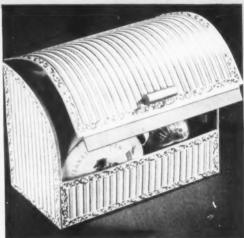


STRIKING ECONOMIES are revealed by the use of this paperboard set-up box replacing a wooden box. Some of these surgical instruments formerly took nearly an hour to pack. The new box is doing a better job for about the cost of labor and shipping expense of the old box. No packing time is involved except for placing instrument in die-cut, flannel-covered slot.

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HAND-MADE BOXES for glamour packaging may be had in almost any desired shape or construction and with specially printed coverings. The fan on this double-hinged, velvet-lined jewelry box for Jacques Kreisler is color-printed embossed foil and has a realistic bas relief effect that looks as though studded with jewels. Elizabeth Arden box for Blue Grass products is made like a Victorian letter box with curved hinged lid and cover paper silk screened in gold.





erances for better fitting covers and consequently neater appearance. All of these factors add to the sales appeal of the item packaged in set-up boxes today.

Decorative materials

Other modern aids are the endless varieties of box covering materials—decorative papers, foils, leather and leatherette, plastics, metal trim, fabrics ranging from rich velvets and satins to cottons and rayons—that may be applied to achieve every conceivable decorative effect. The whole development of decorative packaging papers has grown hand and hand with the ever increasing demand for boxes with greater eye appeal. The set-up box is the only package form, other than a loose wrap, which can make use of these glamour togs, and old timers in the box business say it is only in recent years that such endless variety has been possible.

Improved adhesives and methods for applying the box wrappings are also an important part of the set-up box story. Comparison of the museum specimens with modern factory-made boxes reveals the differences. Coverings are applied today with assurance that the

adhesives will not bleed through the papers or fabrics and that the wraps will not warp or lose their neat, smooth appearance. Improvements are still being made. One leading firm just last year installed new equipment for the application of velvets and other fabrics used particularly for jewelry box coverings.

Basic advantages

The set-up box has found its place in so many industries and may be made in so many forms, ranging from the simplest uncovered boxes of chipboard used as outside protectors to elaborate hand-made glamour boxes comprised of as many as 200 pieces, that it is difficult to list the aspects of every type of application. Certain advantages, however, are common to many users of set-up boxes:

1. No development costs are necessary except for art work in designing special wraps, if desired. There are no costs for tools and dies except in very unusual instances. The average box plant has sufficient equipment to tackle most problems likely to arise. The closest approach to dies are simple wood blocks for

different sized boxes, which can be quickly and inexpensively turned out in the plant's carpenter shop.

2. No equipment or labor is required for setting up the rigid set-up box. It is delivered to the user's plant ready for filling. This often represents a very important saving, particularly in view of today's labor costs and shortages. (On the other hand, of course, is the question of storage space—one of the set-up box's great disadvantages.) One large drug firm which uses both set-up boxes and folding cartons estimates that even with automatic carton set-up and loading equipment, it can turn out filled set-up box packages at approximately the same over-all cost as automatically-filled carton packages.

3. Set-up boxes by their nature are rigid and durable and therefore give good protection against damage and breakage.

1. They are readily and easily opened by the consumer.

5. Set-up boxes provide the necessary storage convenience for products not consumed at once, such as candy, stationery, drugs, machine parts, dental supplies, etc.

6. As shelf packages in the retail outlet, set-up boxes are containers which the sales clerk can open easily to show contents and reclose quickly for replacement on the shelf. Hosiery, lingerie and shirt boxes are good examples of this.

7. As store boxes, they save time and money. They require no time for setting up and often need no additional wrapping other than a string, tape or ribbon for take-home. Tight wrapped with a trademarked paper or distinctive colored paper, they are a walking advertisement for the store wherever they go. For example,

Tilden-Thurber Corp., jewelers of Providence, R. I., use 90 different sizes of set-up boxes in their four stores, always covered with a distinctive green-flint paper, with store name steel-die stamped in a darker green and tied with a green ribbon. This package used for 20 years has become an immediately recognizable symbol for quality throughout the Providence trading area.

8. Users of small quantities often find set-up boxes to be the most economical, since no dies are necessary to make them. Often small quantities of plain boxes can be used without the expense of printing plates by merely pasting on a label.

9. In very large sizes, set-up boxes can be made strong enough to support heavy bulky items.

10. With proper interior backing, they can be used to add bulk to very small items, easily lost unless enclosed in a package of sufficient size. Phonograph needles, small surgical instruments, professional medical samples are examples.

11. Set-up boxes often mean inventory simplification for the firm which can use the same type and size of box for packaging small runs of some 40 or 50 items by merely affixing a different label.

12. Practically every set-up box has re-use value, since all can be opened and reclosed without impairing the structure. These re-use advantages may vary in accordance with the type of box from the inexpensive one that may be thrown away when contents are consumed to the most elaborate gift package with re-use appeal as a jewel, trinket or cigarette box sometimes greater than the appeal of the product in the box.

13. The set-up box is often the ideal medium for the combination package to hold several related items. The cosmetic industry uses set-up boxes widely for

DECORATIVE EFFECTS of endless variety may be achieved with coverings on set-up boxes. New elegance in hosiery boxes is represented by these beautifully printed trademarked covers—the Valcort Nylon is of printed embossed foil, the Dexdale De Luxe of gold bronze and color-printed embossed paper. Subtle shadings of blue for the Rare Jewel perfume box were achieved on a high finish coated paper stock with only two colors and duo-tone printing plates. The cover paper was then gold stamped and embossed. The "jewel" is an authentic, actual-size reproduction of the famous Cullinan diamond.





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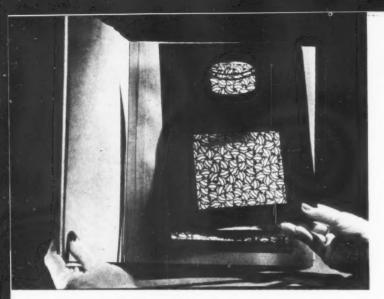
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NEAT WAY of visualizing decorative paper on box is provided by this die-cut mask included in Keller-Dorian's catalog of French papers.

promoting the combination sale, as do jewelers for sets of cuff links and tie clips, necklaces and bracelets, etc; pen manufacturers for pen and pencil sets.

14. Added to all these advantages are the endless possibilities for decorative effects through the unusual use of covering materials.

Designing for the specific job

In package planning, it is generally stated that as the value of a piece of merchandise increases, there is a tendency to put it in a set-up box. But this does not always follow. As many examples can be cited to disprove as to prove this theory. Good packaging is basically a matter of selecting the container that best suits the requirements of the product. Progressive boxmakers say the time is past when the salesman merely sells boxes. Today, each packaging problem must be tackled on its own merits.

There are many applications for which the set-up box is the traditionally accepted package form, such as for boxed chocolates, boxed stationery, boxed cigars, face powders, etc., the same as the collapsible tube is the accepted container for tooth paste or the folding carton for cereals and soap flakes. Until something revolutionary can be found to do the job better, such packaging patterns will continue.

There are just as many situations, however, in which a variety of containers may be in competition for the same job. Such cases may involve (1) purely functional aspects or (2) all glamour and appearance factors. In both categories, there are very strong arguments for the set-up box. The following case histories are examples.

Case histories

Sales Convenience. A leather-goods firm was packaging popular-priced wallets in a variety of colors to sell for a dollar. They required an inexpensive package, but one which dealers could open easily for display to show the colors, yet reclose readily for shelf storage. The package also had to be one that could be opened for customer examination, but reclosed easily without wasting clerk time. An inexpensive stock set-up box with pasted-on end labels met all these requirements at a cost easily within the manufacturer's budget.

Pre-pack. A blouse manufacturer had to satisfy his retail dealers with a package which stores could use as a pre-pack to deliver the blouses to the customer without additional packaging material. At the same time the package had to protect the product and make it available for customer selection. The telescope set-up box provided the only convenient container to meet these specifications.

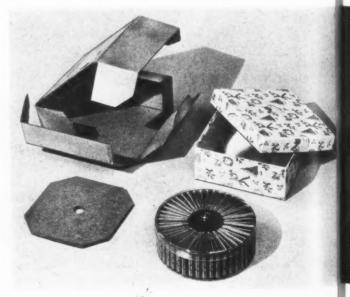
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Refrigeration storage. A drug manufacturer requires packages for biologicals that will withstand the moisture conditions of storage under refrigeration. He finds that the only paper package which meets the appearance standards of his competition and will stand up under refrigeration is a strong set-up box, covered with coated flint paper to resist moisture.

Parts packaging. A manufacturer of machine parts supplies his product for industrial use. The parts are small and of various sizes. Each package contains a quantity of a dozen, used one at a time. The package therefore must be one that can be opened for removing one item at a time, then reclosed and placed on the shelf until a duplicate is desired. The objects are small and must therefore be packaged in a container that is secure and will not allow them to fall out. A durable, varnished set-up box, engineered to specifications with proper interior partitions, is the only efficient packaging solution.

Labor and cost saving. A specially designed paperboard set-up box recently adopted by George P. Pilling & Son Co. for surgical instruments is doing a better job

SPECIAL REQUIREMENTS are often best met by set-up boxes. Here is a gift mailing assembly for book matches, with the set-up box foil lined to meet the post-office safety regulations.



for these high-priced products than a former wooden box and costs only about as much as the labor and additional shipping cost of the old package. These instruments were formerly packed in wooden cases, anchored in place with wooden pegs, protected with shredded paper. Some of the instruments, the company says, took nearly an hour to pack. With the new box, the instrument is merely placed in a die-cut paper-board platform conforming to the shape of the instrument. With flannel padding, it rides to its destination perfectly secure. There is no more packing time involved than is required to pick up the instrument and put it in the flannel-covered die-cut slot.

Display. Alfred Dunhill of London, Inc., recently needed a package for a newly designed square-type cigarette lighter. Requirements were for a box which would be acceptable to the consumer as a gift package, yet effective for display of the lighter on the counter or in a window. The problem was solved by the use of a gold foil-covered set-up box with a very ingeniously planned platform in the base which permits the lighter to stand upright against a flocked-paper background when the cover is removed. This is done by making the base a rigid miniature display rack.

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Glamour. Sometimes an all hand-made box of irregular shape is essential for glamour appeal. Elizabeth Arden wanted a box made like a Victorian letter box to hold a collection of Blue Grass products selling for \$12.50. The box was completely made of paperboard, with curved hinged lid which lifts up by means of a gold-sprayed wood handle. Special cover paper was silk screened in specially designed shapes to align with each surface of the box. The maker of hand-made setup boxes can devise any type of package desired for such glamour packaging, but for such special work the user must be prepared to pay the price.

SET-UP BOX FAMILY for whole line of children's and infant's items illustrates variety and flexibility of set-up box to meet many merchandise requirements for gift and staple sales.



ROUND POWDER BOXES, beautifully finished in every detail, are representative of the highest skill in boxmaking. Coty is most insistent on quality. All its powder boxes are covered with drawn acetate jackets that give added brilliance and durability. L'Aimant package with clip-on plastic bow illustrates clever promotional idea for a "try-on" offer of new lipstick.

Novelty sampling. Set-up boxes can often be planned for special novelty sampling. A few years ago, the Sweets Co. of America wanted an inexpensive package resembling a treasure chest for Tootsie Rolls, to be given away at a social event. The solution was a set-up box, made as a complete rectangular cube and covered with a printed wrap simulating the hinges and locks on a wooden chest. Since the box was overwrapped in one operation and then slit around on three sides for opening, the registration problem of the printing was eliminated entirely. The fourth uncut side of the box served as the hinge. A shoulder rest for the lid was provided by gluing a scored shell inside the base. Another interesting novelty sampler put out by a tea firm was a tiny cube-shaped mailing box with wire clasps and wrap to resemble a miniature tea chest, commemorating the Boston Tea Party.

Decorative stock boxes. Greater attention has been paid in the last few years to the gift packaging of jewelry. It is costly for each jewelry manufacturer and distributor to provide specially designed packages of the quality the public has been led to expect. Several boxmakers, therefore, are introducing a number of velvet and fabric covered boxes, as well as metal-trimmed boxes, on a stock basis which manufacturers or retailers may buy in quantities as small as a dozen.

Economies and combinations

Every boxmaker's salesman today is a specialist trained to assist the user in developing the type of setup box required to do a particular job. He can advise him in anything from basic construction to relative costs and advantages of various covering materials and trademarked printing. He can point out ways to save money without sacrificing protection or appearance, such as eliminating certain (Continued on page 270)

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NIGHT VIEW of Convention Hall, Atlantic City, looking in from the ocean.

ATLANTIC CITY IS READY FOR 18TH ANNUAL AMA EXPOSITION AND CONFERENCE

WITH 200 EXHIBITORS AND 15,000 VISITORS EXPECTED MAY 10 TO 13

Plans are complete for the biggest Packaging Week in history—May 9 to 13 in Atlantic City—the dates of the 18th annual American Management Assn. Packaging Exposition and Conference.

More than 200 manufacturers of machinery, equipment, materials, supplies and services will show their products. The Exposition is expected to be the largest in its 18-year history, covering more than 110,000 sq. ft. of display space, an increase of more than 10%. More than 15,000 representatives of packaging suppliers and users from all over the United States, as well as several hundred Canadian visitors and representatives of more than 29 foreign countries, are expected to attend the Exposition. More than 1,000 are expected to register for the six Conference sessions.

At the end of March, continuing demand for exhibit space required the opening up of a new section with 18 more booths, which could not be shown on the accompanying diagram because of early press time.

The Packaging Week theme, "Proper Packaging Cuts Costs, Increases Sales," will stress basic phases of packaging operations in present economy, retailer packaging problems, advances in technical development, production of packages to meet handling requirements, shipping problems and production costs.

Atlantic City hotels have assured AMA of full cooperation in handling an expected record crowd and are reported to be setting aside large blocks of rooms for those registering for the Exposition and Conference. Reservations should be made as quickly as possible through the Housing Bureau, AMA National Packaging Exposition, Central Pier, Atlantic City, N. J. (Tel. Atlantic City 4-1211).

Both Exposition and Conference will be held in the Municipal Auditorium, located on Atlantic City's famous boardwalk, within easy walking distance of practically all leading hotels.

Attendance at the Conference and Exposition is open to anyone with business affiliation—both members and non-members of the Packaging Division of AMA. There is no admission charge for the Exposition, but fees are charged for the Conference sessions.

The Exposition will extend over four days and will be open as follows: May 10, 12 Noon to 6 P. M.; May 11, 12 Noon to 10 P. M.; May 12, 12 Noon to 6 P. M.; May 13, 10 A. M. to 3 P. M. There will be six Conference sessions running all day Tuesday and Wednesday and on Thursday morning. Two sessions will run concurrently on Wednesday morning, one on Advances in Technical Development with Dr. Roger V. Wilson,

Guide to AMA National Packaging Exposition, Atlantic City

127 B 127A FIBRE PKG	126C 126	B 126A	MOSSTYPE	125	124			121
DRUM SYST.	TRUM PE	RF. MANN	210	PAISLEY 209	STANFORD ENG.	H.G. WEBER		DOUGHBOY
HIGH PROD.	U.S. ENG.	TABER	HOLES	MANHATTAN	WRIGHT MACH.	WOOD CONV.	AUTO-WEB	TRIANGLE
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222	221B	22IA	221	220	219	218	217	216
GOTTSCHO	STOESSEL	COLTON	DIAPHANE	HAYSSEN	REDINGTON	LEEDS	HEAT SEAL-	N.J. MACH
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BENSING	MC KAY DAVIS	TRAVER	VISKING	KIMBERLY- GLARK	U.S. AUTO		PRINT	PACKAGE MAC
410	409A		409	408	406		405	404
MRM			IVERS-LEE	SHERMAN	GOODYEAR		HINDE 8. DAUGH	EASTMAN
421 BAG	PRINT	420B ISLAN EQUIF		AMER. CAN	GONS LITHO.	416 REYNOLDS		415 ECONOMIC
511 CHAM	DI AIN	510B	510A	509	508	507	506	505
GOAT		AREN	CO WHEATON	WRAP-ADE	HAZEL - ATLAS	PNEUMATIC	BETNER	MODERN PCKG
522 521B 5		521A	521	520	519	517		516
GLASS	KIEFER	TUBE	SUN CHEM	F.N. BURT	JONES	MARATHON		SYLVANIA
EXACT WEIGHT	610B R.C.S.	610A 'ANDER	SEAL-SPOU	609 T PACK-RITE	NATL.	607 A-B-C	606 BARRETT CRAVENS	POTDEVIN
622	621B	621A	621	620	619	618	617	616
ROTO BAG	WEST	AMER. PART.	BURT MACH	. HORIX	STANDARD PTG	ACME	CENTRAL	MINN. MINING
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n, Atlantic City Convention Hall, May 10-13

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	401 EINSON-FREEMAN	403 CONTAINER CORP.			EASTMAN	DE		
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	701 SHUMANN	702 BEMIS	HERLAND)3		704 ROSS	BY	
60I A	STOKES & SMITH	INLAND	NRICH HERLAND	HEI			704	





AMA Packaging Conference Program

CONVENTION HALL, ATLANTIC CITY, MAY 10-12, 1949

TUESDAY MORNING, May 10-Grand Ballroom

Chairman: Roger L. Putnam, President, Package Machinery Co., East Longmeadow, Mass.

- 9:30 THE SHORT TERM OUTLOOK FOR PACKAGING MATERIALS—Lee R. Forker, General Purchasing Agent, Quaker State Oil Refining Corp., Oil City, Pa.
- 10:30 THE ECONOMIC OUTLOOK FOR PACKAGING SUPPLIERS AND USERS— Charles E. Lewis, Office of Domestic Commerce, U. S. Department of Commerce, Washington, D. C.
- 11:15 COORDINATING PACKAGING, PRODUCTION AND SALES—Neil McCash, Advertising Department, The Kroger Co., Cincinnati.

TUESDAY AFTERNOON, May 10-Grand Ballroom

2:00 THE RETAILER LOOKS AT PACKAGING—A CLINIC—Conducted by Robert Mueller, Managing Editor, Progressive Grocer, New York, with the following panel:

Meats and Groceries-Paul J. Cupp, American Stores Co., Kearny, N. J.

Drugs-Joseph Griffith, Pennsylvania Drug Co., New York

Variety Merchandise—J. W. Edgerton, W. T. Grant Co., New York.

Department Stores-Hildreth Lange, R. H. Macy & Co., Inc., New York.

Design-Robert G. Neubauer, Southport, Conn.

Displays-S. Silfen, United Cigar-Whelan Stores Corp., New York.

Consumer Preference—Marie Sellers, General Foods Corp., New York.

WEDNESDAY MORNING, May 11—Room 20 (Concurrent session)

- Chairman: Dr. Roger V. Wilson, Director, Customer Research Division, Continental Can Co., Inc., Chicago.
- 9:30 PLASTIC BONDING TECHNIQUES—Dr. Frank C. Campins, President, Polymer Industries, Inc., Astoria, N. Y.
- 10:15 INFESTATION PREVENTION IN CONTAINERS—Dr. Lawrence V. Burton, Executive Director, Packaging Institute, Inc., New York.
- 11:00 POLYETHYLENE—ITS PACKAGING USES AND POSSIBILITIES—Charles A. Southwick, Jr., Technical Editor, Modern Packaging, New York.

MODERN PACKAGING

WEDNESDAY MORNING, May 11—Grand Ballroom (Concurrent session)

Longmeadow, Mass.

LS-Lee R. Forker,

RS AND USERS-

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Continental Can Co.,

President, Polymer

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TIES Charles A.

Chairman: Philip H. Gilbert, Isthmian Steamship Co., New York

9:30 HANDLING FACTORS TO CONSIDER IN CONTAINER DESIGN—Burr W. Hupp, Drake, Startzman, Sheehan, Barclay, Inc., New York.

10:15 SAVINGS WITH THE DISPOSABLE PALLET—David M. Dalv, Traffic Manager, Bristol-Mvers Co., Hillside, N. 7.

11:00 PROBLEMS OF THE RECEIVER IN INTRA-PLANT SHIPMENTS—R. F. Weber, International Harvester Co., Chicago.

WEDNESDAY AFTERNOON, May 11—Grand Ballroom

2:30 PACKAGING AND PACKING FOR SUCCESSFUL SHIPPING—A panel conducted by

J. D. Malcolmson, AMA Packaging Vice President, with the following members:

Export-I. Gardner Crowell, Philos Corp., Philadelphia.

Bulk Products-T. P. Callahan, Monsanto Chemical Co., Spring field, Mass.

Heavy Products-Jerome F. Gould, Acorn Packaging & Packing Corp., New York.

Container Quality Measurements-E. H. Balkema, Colgate-Palmolive-Peet Co., Jersey City.

Container Performance Standards-E. S. Petze, Scott Paper Co., Chester, Pa.

Shapes-W. Irregular Gordon Bennett, Anaconda Copper Mining Co., New York.

THURSDAY MORNING, May 12—Grand Ballroom

Chairman: P. J. Lathrop, President, Cameron Machine Co., Brooklyn

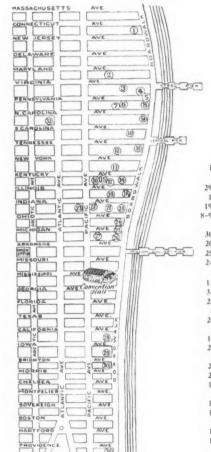
9:30 PROFITABLE DEVELOPMENT OF AUTOMATIC MACHINERY—George Woodruff, Machinery Development Div., General Foods Corp., Battle Creek, Mich.

10:15 REDUCING COSTS THROUGH FLEX-IBILITY IN PRODUCTION—Ned Drucker, Manager of Engineering, Schenlev Distilleries, Inc., Cincinnati.

11:00 GETTING THE MOST OUT OF MA-CHINERY FOR FILMS-Walter Farrelley, Cellophane Division, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Atlantic City

Hotel district and Convention Hall



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25-Dennis 24-Marlborough-

Blenheim 11-Mayflower 31-President

28-Ritz Carlton

4-Seaside

26—Shelburne 5—Strand

18—Graymore 27—Arlington

6—Colton Manor 22—Crillon 23—Eastbourne

12—Flanders 2—Franklin Inn

15—Jefferson 16—Kentucky

7—Lafayette 17—Madison 13—Monticello

3-Morton 32-Penn-Atlantic

21—Runnymed

14-Sterling

director of Customer Research Division, Continental Can Co., Chicago, as chairman, and the other on materials handling with Philip H. Gilbert, Isthmian Steamship Co., as chairman.

Conference hours will be from 9:30 A. M. to 12 Noon for morning sessions and from 2 P. M. until 5 P. M. for afternoon sessions, except for the opening meeting on Tuesday beginning at 9:45 and the afternoon session on Wednesday beginning at 2:30 P. M. Thirty-three experts chosen for their accomplishment and experience will participate in the panel discussions of the Conference which will cover half again as many subjects and will include discussions by almost three times the number of experts as participated last year.

Two feature attractions will be of special interest during this year's Package Week.

For the first time in the history of the show, there has been established a Packaging Theater for the showing of educational films on various aspects of packaging, packing and shipping. Approximately 20 films on up-to-date technical developments, processes, methods, materials procedures, etc., will be shown continuously during the hours the Exposition is open, so that visitors may sit down and see these educational movies at their leisure instead of having to watch them standing in the crowded aisles of the exhibit area. Ben M. Williams is chairman of the theater committee.

The Assn. of American Railroads will conduct continuous demonstrations of carloading and bracing techniques for both consumer and industrial goods on scale models of railroad rolling stock pulled up on the tracks inside the Convention Hall.

Other packaging organizations will also take advantage of Packaging Week to hold their own meetings. The Packaging Machinery Mfrs. Institute will conduct its spring meeting on May 9 at the Hotel Dennis, with a semi-annual banquet in the evening. A PMMI get-together will precede the meeting on Sunday evening, May 8. The committee includes, George W. von Hofe of New Jersey Machine Corp., Carl E. Schaeffer of Stokes & Smith Co., Wallace E. Coughlin and K. M. Peterson of Pneumatic Scale Corp. The Packaging Institute will hold a luncheon at the Ritz-Carlton Hotel, May 11 at 12:30 P. M. After the luncheon, a new subcommittee on dry foods will organize.

Lawrence A. Appley, president, J. D. Malcolmson, vice president in charge of the Packaging Division, and James O. Rice, secretary, of AMA, are in general charge of the Exposition and Conference. The Exposition is managed by Clapp & Poliak, Inc., with an AMA Exhibitors' Advisory Committee headed by J. W. Cowan of The Dobeckmun Co. and including: A. B. Clunan, The Goodyear Tire & Rubber Co., Inc.; Alan S. Cole, Modern Packaging; N. A. Fowler, General Box Co.; Robert D. Handley, Sylvania Division, American Viscose Corp.; D. S. Hopping, Celanese Corp. of America; Samuel Y. Hyde, American Can Co.; M. P. Junkin, National Metal Edge Box Co.; L. L. McGrady, Eastman Kodak Co.; C. F. Manning, Reynolds Metals Co.; E. J. Marsh, Marsh Stencil

Machine Co.; Paul Meelfeld; The Hinde & Dauch Paper Co.; Tom Miller, Package Machinery Co.; K. M. Peterson, Pneumatic Scale Corp., Ltd.; L. L. Pilliod, The Pilliod Cabinet Co.; Paul Thompson, Sherman Paper Products Corp.; James Turnbull, Monsanto Chemical Co.; Mills W. Waggoner, Better Packages, Inc.; Richard Wellbrock, New Jersey Machine Corp.; Ben M. Williams, Gaylord Container Corp.

Members of the AMA Packaging Division Planning Council assisting with Conference arrangements are: J. D. Malcolmson of Robert Gair Co., chairman, and Frank A. Biederman, Kimberly-Clark Corp.; John L. Bradshaw, Pyrene Mfg. Co.; Frank C. Campins, Polymer Industries, Inc.; R. deS. Couch, General Foods Corp.; Neil A. Fowler, General Box Co.; Henry J. Howlett, Container Laboratories, Inc.; W. R. Hummel, Western Electric Co.; O. E. Johnson, Kaiser-Frazer Corp.; Douglas Kirk, The Quaker Oats Co.; Richard W. Lahey, American Cyanamid Co.; L. W. Ledbetter, Ralston Purina Co.; Stanley W. Mackenzie, U. S. Rubber Co.; Glenn Mather, Continental Can Co., Inc.; W. L. Romney, The Procter & Gamble Co.; Dean E. Rueckert, Swift & Co.; Berkeley V. Schaub, National Starch Products, Inc.; Charles A. Southwick, Jr., Modern Packaging; L. B. Steele, E. I. du Pont de Nemours & Co., Inc.; Julian Toulouse, Owens-Illinois Glass Co.; John A. Warren, American Home Products Corp.; Charles E. Waring, The Davison Chemical Corp.

The following alphabetical list gives details of exhibits, names of key personnel attending and hotel head-quarters in so far as possible for all those exhibitors who answered Modern Packaging's questionnaire. (The attached Guide to the Exposition, along with the Conference program, diagram of the Exposition floor and a map of Atlantic City, is perforated to tear out for your convenience):

A-B-C PACKAGING MACHINE CORP., Booth 607. Short case sealer. Personnel: O. A. Rupp, K. J. Kortvelesy, I. G. Nichol. Hotel: Ambassador.

ACME STEEL CO., *Booth 618.* Acme silverstitchers and steelstrapper. *Personnel:* F. R. Grove, A. G. Denne, V. J. Fiore, H. J. McGrath, V. F. Murphy, M. G. McGuinn, *Hotel:* Claridge.

ALLIS-CHALMERS MANUFACTURING CO., Booth 719. Metal detector. Personnel: L. F. Ballone, R. H. Black, R. N. Brown, F. J. Geiger, A. Hofberg, W. A. Meyer, O. W. Noeske, J. R. Roe.

AMERICAN CAN CO., Booth 419. New composite fibre-and-metal container with semi-perforated tamperproof metal end. Personnel: A. C. Staley, W. E. Vaughn, G. W. Reese, D. G. Magill, W. K. Cabot, T. E. Alwyn, E. K. Walsh, D. T. McFadden, F. G. Jewett, J. W. King, S. Y. Hyde, H. H. Howry, Jr. Hotel: Claridge.

AMERICAN PARTITION CO., Booth 621A. Display of pre-assembled interlocking (Continued on page 234)



CARTONS USED in Sweden contain coffee, tea and powdered products. Liner, which can be sealed or unsealed, is shown on coffee carton in the center background ready to be folded over when the top flap is glued at forward white area. When opened, the top flap tears at score line and provides a tongue for reclosing in slot of lower flap.

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For the last three years visitors to Sweden have been returning with reports of a lined folding carton, completely siftproof, automatically filled and hermetically sealed, which, through simple but ingenious design, can be reclosed virtually airtight during gradual consumption of the product.

Now arrangements have been concluded for the construction of the machinery in this country and for the licensing of the carton design to American carton makers. Judging from reports from Swedish users, this may be one of the most important packaging developments of the year.

The package

The design of the package may be grasped from the accompanying illustrations. The carton comes with a pre-affixed liner which may be sulfite, greaseproof or glassine påper, aluminum foil, cellophane, Pliofilm or any other material offering suitable protection for the product. The liner extends about an inch beyond the full length of the carton blank, top and bottom. After filling, the closing machine pulls the open mouth of the liner together at one side, like a bag top, simultaneously with the folding in of the side carton flaps; folds one of the full carton top flaps down against the base of this liner extension to hold it firmly; heat seals the liner, if necessary, and finally folds the other full carton flap down and spot-glues it to the lower flap, with the one-inch closed liner extension folded over between the two large flaps.

Full sealing of the top carton flaps is not required,

since all product protection—including the siftproof and hermetic features, if desired—is provided by the liner. Bottom carton flaps, are, however, full glue sealed to hold the weight of the contents and add to rigidity of the carton.

The reclosing feature is provided by the design and gluing of the top flaps. In closing, glue is applied only to a specified area on the hinge side of the lower of the two top flaps, opposite the folded-over liner top (see white area on partially opened package in center background, photo above). At the center of this lower flap. beyond the glue area, there is a die-cut, half-elliptical opening. The top flap is scored across, as shown by the various examples above, and an ear or tab extends from one side. When the consumer grasps this tab and pulls, the upper flap tears across the score line or perforation, exposing the center tongue which can be tucked into the die-cut opening of the lower flap for a tight reclosure.

The opening and reclosure of a coffee package is illustrated by Figs. 1 to 4. In reclosure, the liner top is brought together as it was originally, held by the free edge of the bottom flap, folded over 360 deg. and compressed as the top flap is tucked into the slot. This is, of course, not a hermetic reseal, but it is said to be substantially airtight for all practical purposes during the short time that a product such as coffee, sugar or cereal is being consumed.

Directions and diagrams for opening and reclosure usually are printed on the carton, although the package is now so well known to Swedish consumers that

COMES TO U.S.

A FOLDING BOX AND LINER, FILLED AND

SEALED ON COMPLETELY AUTOMATIC LINE

PROVIDE A SIFTPROOF, AIRTIGHT, RECLOSABLE PACKAGE AT LOW COST

directions are superfluous. In the case of a single-use product, such as a pudding powder, the reclosure construction of the flaps is of course not required.

The machinery

A completely automatic line, developed by the same Swedish company which originally developed the carton and carton-sealing mechanism, turns out finished packages at rates as high as 2,400 an hour, with only two attendants, one a magazine loader and one for packing the filled cartons into shipping containers. A unique, built-in, check-weighing device separates packages that are plus or minus 1 gram. The machinery, shown over-all at the bottom of this page, operates as follows:

The line is laid out in "L" shape and the flat, lined cartons are stacked in the magazine at the short end of the L just as received from the carton manufacturer in bundles. Cartons are automatically fed, squared up, liner and flaps closed at the bottom, and then moved in conveyor pockets under the filling head.

The filler, alternatively, may be an electro-mechanical weighing machine, for free-flowing products, or a volumetric filler of the auger type, for powdered products. In either case, a closely regulated amount of the product is discharged into the open carton and it then moves into the ingenious mechanism which folds and seals the liner and flaps as described above.

The action by which the open end of the liner is pulled smoothly to one side, preparatory to sealing, while the carton flaps are being folded over, is particularly interesting. It is accomplished by a metal arm,

How carton is opened and reclosed



Pulling tab tears upper flap along the score line.



Partly opened package shows reclosing tongue.



Coffee being poured out of the foil-lined package.

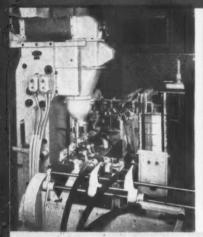


Tongue tucked in slot for a tight reclosure.

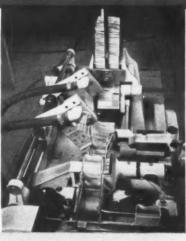
OVER-ALL VIEW of a complete packaging line, showing (left to right) carton hopper and set-up; auger filler; check weigher and carton closing, sealing and compression unit. Carton sealer (right of green line) may be used alone where the packages are set up and filled by any other means.



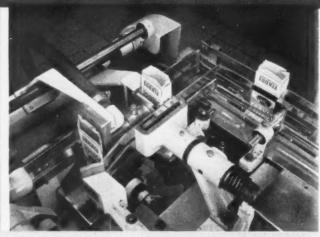
Step-by-step operation of automatic packaging line



LOOKING from the short end of the L shape in which the machine is set up, past the carton hopper and filler and toward the discharge end.



VIEW FROM REAR of machine toward carton hopper and setup unit. Cartons are stacked in the magazine, just as received from the carton manufacturer.



CARTONS ARE FED, opened, squared up, bottom flaps closed and moved at a right angle into the filling line. The filler may be either an electro-mechanical weighing device, for use with free-flowing products, or a volumetric filler of the auger type for powdered products.

shaped like a duck's bill (and familiarly known as the "Donald Duck"), which, with an eccentric motion, dips quickly down into the open liner and then, as the small flaps are folded over against the liner extension, slowly withdraws, leaving the liner surfaces tight and smooth. This mechanism is shown close-up at right.

At this point, with the final top and bottom flaps still unsealed, the carton is turned on its side and moves over the check-weigher. If the weight is out of tolerance, an arm catches and holds the top flap upright to keep it from being sealed as the carton moves on through the machine. Thus the attendant at this point can readily spot the out-of-weight packages, remove them, empty the contents back in the filler, salvage the package and re-insert it at the head of the line. This has economy advantages over the type of device which check-weighs and separates packages after they have been sealed, requiring that out-of-weight packages be opened and destroyed if the contents are to be salvaged.

If the weight checks, the extended liner top passes through a heat-sealing device (optional), glue is applied to the indicated area on the carton flap and the top flap is brought down and sealed while the completed package moves through a compression unit under thermostatically controlled, quick-drying heat.

There are several options in the machinery set-up, depending upon the volume of production, the product being handled and the liner material used. For granular products requiring little water-vapor protection it is not even necessary to seal the liner at the top, as the folding over and compression of the liner top is sufficient to make it siftproof for all but finely powdered products. In fact, most of these packages used to date in Sweden, where shipping distances and shelf life are

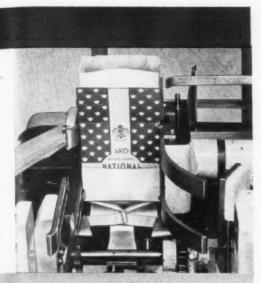


AFTER FILLING (left) liner is grasped by a duckbill device, familiarly called "Donald Duck," as the flap-closing starts. It dips quickly down with an eccentric motion into the open liner, then slowly withdraws, leaving the liner surfaces tight and smooth.

relatively short, have been non-heat sealed. The liner heat-sealing attachment has been developed only recently, but it is felt that it will generally be used here.

It is not necessary to apply an over-all thermoplastic coating on the liner where heat sealing is desired; it can be spotted only at the sealing edges. The Swedish originators of the package have developed a means of heat sealing even ordinary sulfite paper. This is accomplished by applying, on the machine, a special wax to the mouth of the lining and then perforating the paper under heat, so that the heated wax, owing to capillary action, is forced into the perforations and on cooling binds the two surfaces firmly together. This is said to provide an economical, fully siftproof package for products like cocoa.

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BOTTOM FOLDING and closing are shown close-up. In Sweden, the new package has been used mainly for three types of products: coffee (ground and unground), pudding powders, dehydrated foods.

range of 60 by 30 by 100 mm. up to 130 by 70 by 200 mm.

The machinery, constructed with the usual Swedish precision, includes the following features:

Pressure lubrication.

Oil-filled gear box for the sealing unit.

Ball bearings and self-lubricating sleeve bearings at all important points.

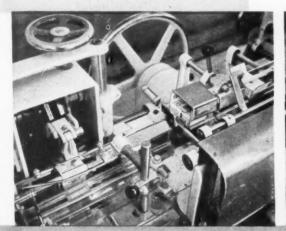
Economical, adjustable glue control.

Special shaping disks for sealing the packed cartons tightly and squaring them.

Economy of space. No long drying tracks required, compression and drying being effected under the pressure of a heat-controlled steel band.

Swedish experience

Observers report that in Sweden this type of lined carton (which is produced under license by several makers in addition to the original patentee) has very largely replaced the earlier type with non-attached inner bag of outer wrap because, (Continued on page 280)



SMALL FLAPS CLOSED, carton is turned on side as it enters the check weigher and sealer. Final top and bottom flaps are still unsealed at this point. Sealing operation is not performed until carton is check weighed.

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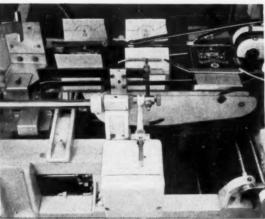
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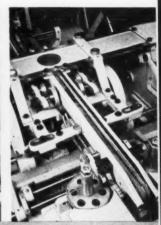
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CHECKrWEIGHING station. If weight is out of tolerance, a control arm catches and holds one carton flap upright to keep it from being sealed as it moved on through the machine. Thus it is easily removed by attendant.



FINAL sealing unit and compression belt in which glued flaps are dried by thermostatically controlled heat.

The complete automatic line actually is a combination of two units: the carton closer and sealer, which was developed originally in 1941, and the carton set-up and filling unit, which was added in 1946. For a small operation, where it is practical to set up the cartons by hand and fill by semi-automatic or manual means, the carton sealer can be purchased separately, thus permitting use of the carton at relatively low cost. The automatic set-up and filling unit can be added any time.

The carton sealer can be adjusted in a few minutes, it is claimed, for cartons of different sizes without the aid of a mechanic or change parts, so that it is possible to run off small and large quantities of varying sizes in the course of a day's production. The entire line is said to be easily adjusted for cartons in a size

CARTON FLAT and set up, demonstrated manually. This is an American test carton with Pliofilm liner designed to be heat sealed at extended mouth shown being folded over lower flap.



Beauty in bulbs

BY UTILIZING THE CONTAINER TO

VISUALIZE THE END RESULT, THE MULFORD BROTHERS HAVE REVOLUTIONIZED

THE MERCHANDISING OF A DRAB PRODUCT

Back in 1921 two husky young brothers from Lebanon, Ohio, were wondering how they could find a spare-time source of income that would enable them to continue their studies at Ohio State University. Both were students in the agricultural school at the university and both were bent upon becoming scientific farmers. The names of the brothers were Hewett and Marion Mulford.

This was the year of the first post-World War I recession and jobs—even part-time jobs—were not plentiful. But with characteristic American enterprise, the Mulford brothers refused to be counted out. After a good many rebuffs and false starts, they finally hit upon the idea of selling flower bulbs of both the home-grown and imported variety.

The merchandising of flower bulbs at the time was pretty primitive. The bulbs were imported in large

OVERWRAPPED by machine with full-colorprinted, glossy transparent film, these windowtype folding cartons have raised the flower bulb to a glamour product. Wrap is opaque printed except for open areas over window where bulbs themselves may be seen between printed flowers. kraft bags and the domestic growers took their packaging cue from their foreign cousins and went no further toward using their packaging as an aid to merchandising.

Consequently, the retail outlets for flower bulbs were largely seed stores, florist shops and, in the smaller towns, general merchandise stores. During the fall of the year these outlets put the bulbs on display by merely rolling down the tops of the bags in which they were received and sticking a home-made sign in each to identify the variety. In other words, flower bulbs were strictly a demand item and people who wanted them had to seek them out.

Possibly the reason why no one ever thought of putting flower bulbs in consumer units and dressing up the package was the fact that the merchandise itself is not too attractive in appearance. Practically all flower bulbs look a good deal like dried-out and overdone onions.

The Mulford brothers realized that if they could sell the *flower* rather than the bulb, their merchandising problem would be largely solved. By 1923 they had conceived the idea of packaging individual bulbs, al-

SAMPLE SHOWS rich detail and coloring of rotogravure printing on reverse side of the box overwrap. This is a portion of a typical cellophane sheet; cellulose acetate also has been used as an overwrap.

SAMPLE COURTESY SHELLMAR PRODUCTS CORP.





PRODUCTION LINE at Mulford's Ohio plant. Folding cartons are set up by hand, placed on a conveyor belt, filled through the open window and then pass through the overwrapping machine.



CANADA MARTINE

Cultivate after to keep sail loose. See that plants never softer from lack of water.

5. Dig up in Fall before freezing weather for replanting following Spring Bulbs will multiply in number. Store in dry place a few days before dividing the new bulbs. Keep in a cool, dry place until Spring.

PATENT RIGHTS RESERVED

1948
HEWETT P MULEORD & CO.
LEBANON, OHIO

6 GLADIOLI
ASSORTED COLORS
AND VARIETIES

A Cultivate often to keep soil loose. See that plants never suffer from lack of woter.

6 GLADIOLI
ASSORTED COLORS
AND VARIETIES

5. Dig up in Fall before freezing weather for replanting following Spring Bulbs will be with the spring for the first spring freezing the new bulbs. Keep in a cool, dry place units Spring.

PATENT RIGHTS RESERVED

S 1944
HEWETT P MULFORD & CO
LEBANON, OHIO

eady potted and ready to grow, in a retail package hat would appeal to the fixed-price general merchandise chains. The idea was excellent and it did catch on with the syndicate stores. Unfortunately, the boys did not have a properly developed package and the goods remained on the counters for too long a time. The result was that most of their 1923 pack was unsalable and, as Hewett Mulford eloquently puts it, "We like to went broke."

Nevertheless, the 1924 season saw Hewett P. Mulford back in the business of selling packaged flower bulbs. This time the package had been redesigned and sales boomed. The lesson of a good package had been learned. Since that time, Hewett P. Mulford & Co. have been regarded as packaging experts in their field and have received many awards, including a Modern Packaging All-America Award in 1936.

The next 15 years were busy ones. They saw the establishment by the Mulfords of Springtime Bulb Farms, at Lebanon, where mass production of domestic bulbs from imported ancestors became big business.

During these growing years Marion Mulford, who handles the selling, advertising and packaging end of the business, kept in close touch with developments in packaging materials. With each advance in the techniques of employing transparent films through better printing and fabricating, the Mulford packages underwent revision and improvement.

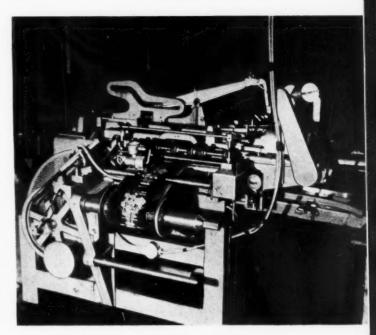
Just before World War II, when rotogravure reproduction of colored photography on transparent film was in its first stages, the Mulford packages blossomed forth with full-color illustrations of the beautiful flowers that were the end product of those drab onion-like bulbs. Business was booming—only to receive another severe set-back when World War II not only shut off imports from the European bulb growers, but sharply restricted the choice of packaging materials.

However, the war years were not permitted to pass in idleness. Plans were in readiness so that as soon as bulbs and packaging materials were again available, "Springtime Bulb Farms" products were ready for eager buyers.

The first wartime package was a square-style bag of transparent film with a paperboard insert. The bag faces carried reproductions in five, six or seven colors of the tulips, hyacinths, daffodils, irises and gladioli that could be grown from the bulbs, visible from the inside of the bag.

Beauty-hungry gardeners were swift to seek out their favorite bulbs and so were thousands of people who never had been gardeners, but who bought the gorgeous packages on impulse when they saw them displayed in retail stores.

Mulford's production lines, all hand operated, became inadequate to meet the demand. It was obvious that a faster and more economical means of packaging had to be devised, because the time lapse between the lifting of the bulbs from the growing beds and the time for replanting them in home gardens is only a few short months.



MACHINE is adaptable to either cellophane or acetate film, fed from roll as shown in fore-ground. Machine cuts off, overwraps and seals film around cartons moving in from right of photo. Finished cartons emerge from same conveyor belt and are immediately placed in shipping cartons.

The problem has been solved by the installation of an automatic wrapping machine which takes window cartons containing the desired number of bulbs and overwraps them in printed transparent film fed from the roll.

Both cellulose acetate and LSAT cellophane have been used.

The operations of setting up of the cartons and the selection and placing of the bulbs in the carton are still done by hand, but now paced by a conveyor belt. The filled but unwrapped cartons are fed to the wrapping machine on the conveyer belt; the wrapped cartons emerge from the machine on the same belt as it makes the return trip and are immediately placed in shipping cartons.

Both imported bulbs and those grown domestically are packaged. The package not only has eye-stopping beauty, but is ideal for self-service selling because it carries on the reverse side full directions for planting and growing and the description of the flower varieties within the package.

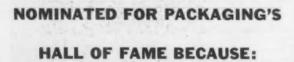
Hewett and Marion Mulford today are the proprietors of a thriving business with an increase in sales volume of several thousand per cent over 25 years ago—largely attributable to their idea of introducing a package with sales appeal.

CREDITS: Gravure printing of wraps, Shellmar Products Corp., Mt. Vernon, Ohio. Color photography, Schalen Studios, Cincinnati. Film, Celanese Corp. of America, New York, and E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Cartons, The Gardner-Richardson Co., Middletown, Ohio. Wrapping machine, Hayssen Mfg. Co., Sheboygan, Wis.

FOURTH OF A SERIES



On this month's cover . .



- The Dutch Boy trademark was deliberately conceived to capture the hearts of America—and succeeded
- It demonstrated the force of a powerful trademark in unifying a diverse line
- Its packaging and promotion principles for 42 years have set high standards in its field



"Bright as the 'Dutch Boy's' bright blue cap ... sparkling as the sun on his golden hair ... lasting as his cheery smile . . ." Thus begins an ad, extolling the virtues of Dutch Boy ready-mixed paints, appearing in current issues of national consumer magazines. Thus does the National Lead Co., after 42 years, continue to capitalize on the winning personality of one of America's most famous, most durable and most heavily promoted trademarks.

The apple-cheeked, bobbed-hair Dutch Boy is more than a symbol. Specifically charged with the job in 1907, he succeeded in welding together some 20 heterogeneous trade names. These were local and sectional brands inherited when National Lead Co. was formed by bringing together a number of manufacturers of white lead doing business in different sections of the country. Overcoming local pride and deep-rooted tradition (one member of the National Lead family had been doing business in an Eastern city continuously since 1772), he gradually submerged all local names to one strong national brand and contributed materially to the building of a \$320,000,000 annual business.*

The original Dutch Boy—created on canvas by the famed protrait painter Lawrence Carmichael Earle in 1907—looks down today, from his gold frame, over the long board of directors' table in National Lead Co.'s headquarters in downtown Manhattan. There is an unsubstantiated story that directors customarily face the painting and bow ever so slightly before sitting down to go over the latest profit reports.

So valuable is the painting considered that it is never permitted to be removed from its place of honor on the wall; lithographers and printers charged with reproduction of the trademark must haul in their equipment and do the work in the spot. It is, in fact, a painting of considerable artistic merit, often compared, in serious critiques, to Gainsborough's "Blue Boy" and other famous "boy" portraits.

 $^{*\,1948\,\}mathrm{sales}$ of National Lead Co., including paint, lead and related products; from the Annual Report dated March 10, 1949.

DUTCH BOY packaging has progressed through the years from the oak keg to the steel keg (pioneered by National Lead Co.) and finally to the colorful consumer line, of which the new Wonsover interior paint is a typical example. For 42 years the Dutch Boy has been the identifying feature of all of National Lead Co.'s paints.





On the strength of the great fame and success of its trademark, the Dutch Boy package was a unanimous nominee for this Hall of Fame series. But beyond that, the principle of uniting diverse brands under a single powerful trademark is as good today as it was in 1907; the conditions which led to this solution are conditions still frequently encountered and the detailed story of Dutch Boy is full of valuable tips for today's packagers.

How it began

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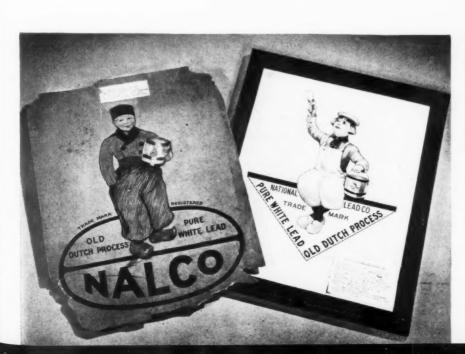
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Incorporated in 1891, the National Lead Co. found itself by 1907 marketing 21 different brands of white lead—all substantially the same product. Each of





EARLIEST EXAMPLE of the Dutch Boy trademark is this 1907 oak keg, holding 100 lbs. of white lead. The masterful portrait by George Carmichael Earle (see cover illustration) was painted for the purpose in that year and the first label was a metal plate on the wood keg above.

CONCEPTION of the now-famous trademark is found in these rough sketches done in 1904 to 1906. Framed sketch at right was actually adopted as trademark and used in advertising in 1906; it served as the basis for the oil painting by Earle in 1907.

these brands was popular in some section of the country, but none was sold nationally.

The dawn of the twentieth century had marked a distinct trend to national marketing, backed by national advertising. The basic purpose of the National Lead Co.'s formation was to unify and extend the marketing of white lead. Lucius A. Cole, second president of the company (1896–1910), saw the possibilities of national advertising, but was handicapped by the profusion of brand names he had to promote. To advertise each separately in the locality where it was marketed was both costly and inefficient. To advertise all 21 brand names together, nationally, would be unwieldy and might only lead to confusion in consumers' minds. To drop the local brands precipitately, in favor of a single national brand, was unthinkable, because it would sacrifice the prestige built up individually by each brand—some going back over 100 years at that time.

President Cole and his long-time famous advertising manager, O. C. Harn, thereupon conceived the idea of a dominant trademark which would be common to all 21 brands without loss of their individual trade names and distinguishing features.

The Dutch Boy was adopted primarily because at the time of his conception as a trademark, most white lead was manufactured by a Dutch process which had been standard for centuries. The Dutch were famous for the quality of their paints and for the spic-and-span whiteness of their buildings. Holland was a quaint, romantic country and pictures of the wooden-shoed natives fascinated school children then as they do today. Putting the boy, with his wooden keg and brush, in the attitude of a house painter, gave animation to the subject, tied him up with the product and suggested that the quality of the paint was so good that even a child could use it. Finally—what may or may not have been foreseen at the time—a character in quaint, traditional dress could survive unchanged for generations, whereas a more topical figure would have to be changed frequently to keep in step with styles.



BLUE AND WHITE LABEL, with prominent full-color figure of the boy, distinguishes the new consumer line of exterior and interior paints, which were introduced late in 1941. Despite the familiarity of the trademark, Dutch Boy paints had not previously been merchandised direct to consumers. The quart, gallon and five-gallon cans with paper labels were a new departure and Designer Georges Wilmet was retained to do a thoroughly modern job for them.

ORANGE AND BLACK colors, lithographed in most cases directly on the metal confication. The steel keg for white lead, which National Lead Co. pioneered, was a notable packaging development of 1909.



b

Mr. Harn gave specifications of his idea to a Dutch artist named Rudolph Yook, an employee of the George Batten Co., advertising agency, who drew some pencil sketches used at first only as ad illustrations several years prior to 1907. One of Mr. Yook's sketches was actually formulated into a trademark which, adopted by the board of directors in 1906, was never actually used on a package. This sketch (shown in an accompanying illustration) was comparatively crude, but it did show a Dutch boy in exactly the same pose and much the same costume as today. Mr. Cole suggested that this sketch be turned into really fine art as a permanent trademark for all National Lead products. He authorized Mr. Harn to commission the finest portrait painter available and the job was turned over to Lawrence Carmichael Earle.

Details of the painting's execution were disclosed by chance, long after Mr. Earle's death in 1921, when the "Dutch Boy" model—who turned out to be a New Jersey Irish lad named Michael Brady—was discovered working as a cartoonist for the *Brooklyn Eagle*. Mr. Brady told how, as a boy of 9, he was playing near his home in Montclair, N. J., when Mr. Earle passed by, studied him, talked with him and employed him as a model. Twenty-four years later, when a photograph of Mr. Brady in his 30s was reproduced in *The Dutch Boy Painter*, National Lead house organ, his resemblance to the painting was still striking—an expressive face suggesting a combination of mischievousness and seriousness of purpose, which, as that of the Dutch Boy, has endeared itself to millions.

Legend has it that Artist Earle paid off his model in ice cream sodas, but Mr. Brady (now dead), insisted that he was paid every day at the rate of \$2 an hour, which he promptly spent on candy and soda—resulting, before the painting was finished—in a Gargantuan stomach ache. Mr. Earle worked in the studio of his friend, George Inness, not far from the Brady home in Montclair. Meticulous as to detail, Mr. Earle bought young Brady wooden shoes, blue overalls and cap, and had him wear them for several days at play so they would acquire a "lived in" look.

An amusing sidelight on the story came to light last year in a letter written from Los Gatos, Calif., by Lawrence H. Earle, son of the artist, requesting an enlargement of the original Dutch Boy and saying:

"My father painted the Dutch Boy in Montclair, N. J., when I was a kid and when the little local newsboy he used for a model quit the job I took over, donned the sabots, the wig and the costume and posed, at 50 cents a sitting, while my buddies were out playing sandlot baseball so that Dad could finish the commission. I therefore have a claim to being the original Dutch Boy . . . The wooden shoes I wore (sabots) were brought to me from Sweden by our old cook, Christine, on her return from a visit to her old home and I used to wear them to school, much to the delight of my schoolmates and the distress of my teachers.

"As I remember it, it was in mid-summer when I posed, hot as Hades, and I was most uncomfortable, but



THREE CHOICES were offered by designer when consumer label was introduced in 1941. Center version was chosen as the most effective and workable arrangement of various elements.

the 50 cents was a potent inducement and I stuck it out."

The gay, lovable personality of the boy that Mr. Earle's talented brush reproduced on canvas—and that lithographers, engravers and printers subsequently reproduced in advertising and on labels—immediately caught the public's fancy. Although at first used on packages merely as an adjunct to the local brand name, popular fancy and the power of national advertising soon put the prestige of the Dutch Boy trademark in the ascendancy over the various local trademarks. As soon as this was obvious, steps were taken to subordinate the local brands to the Dutch Boy. Local trademarks were relegated to the lids of white lead kegs and the Dutch Boy name and illustration were used prominently on the sides of the kegs. Today the Dutch Boy has completely replaced all local paint brands and has made secure his place as one of America's most acceptable trademarks.

In fact, as National Lead Co. has grown and expanded into metals and many diverse products, the Dutch Boy has become a symbol for many products entirely unrelated to paint. His familiar figure and the company name are virtually inseparable.

It was soon discovered that the facial expression and quaint costume of the Dutch Boy so impressed themselves on the public that he could be readily recognized in postures other than the familiar trademark position, with paint brush at work. Unlike most trademarks, he has over the years been used in advertising and promotion in hundreds—perhaps thousands—of different poses. Whether painting a house, waving his cap, playing baseball or standing on his head, he is instantly identifiable as the National Lead Co. trademark and his warm, honest personality inspires confidence in his wares.

History of packaging

It is a tribute to National Lead Co.'s advertising and promotion that, although polls for years have shown the Dutch Boy to be among the trademarks best known to

consumers in every walk of life, he had never appeared as a dominant figure on a consumer package until a few years ago, when the company introduced nationally the first inits line of ready-mixed paints in sizes designed for direct consumer purchase. Mixed paints have been marketed on the West Coast by National Lead Co.'s Pacific Coast branch for about 20 years.

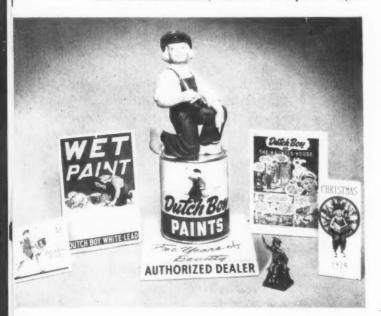
In fact, until about 10 years ago, he had never appeared in full color on a paper label, on a nationally distributed product, for the larger sizes of bulk paints and paint products supplied to master painters—which previously comprised the company's entire paint line—do not lend themselves to that type of labeling.

Until 1941, the intensive consumer advertising and promotion of Dutch Boy painting materials had been aimed principally at building prestige for the name and influencing consumers to specify the brand when contracting for painting work. When National Lead decided to move into the house-paint market nationally, its trademark was ready-made and its acceptance assured.

Although white lead kegs are usually not thought of as a merchandising package, National Lead has repeatedly shown originality and a strong merchandising sense in their handling. Up until 1909 the paint package had been much the same as it was in the Middle Ages: a stout oaken keg, such as the Dutch Boy carries in the trademark illustration. In fact, the new trademark, shortly after its adoption in 1907, was first applied by National Lead branches to just such a wooden keg.

In 1909, however, coincident with early promotion of the new trademark, National Lead announced the

PROMOTION of the trademark has taken many forms over many years. Typical are the statuette counter display (center); the bronze paperweight souvenir (lower right); the children's paint book (upper right), a feature for many years; the 1919 Christmas card; the old "wet paint" sign.



solution of another packaging problem on which it had long been working: the first successful metal white lead keg. Metal packages had been attempted by rival companies for some time and painters were clamoring for the improvement, but the early versions were expensive and had a bad habit of splitting at the seams when filled with 50 or 100 lbs. of white lead.

National Lead Co. engineers worked out a process of drawing seamless containers from a single sheet of steel, and built and equipped their own factory to supply them—at no extra cost. The new steel kegs came in sizes to hold $12^{1/2}$, 25, 50 and 100 lbs. of lead. The smaller sizes had sloping sides and were fitted with bails. The 100-lb. size, designed to be moved by rolling, had parallel sides.

The steel containers (still referred to in the paint industry as "kegs") were finished in a dull, gunmetal black. On the side of the keg was found the new Dutch Boy trademark and under it an oblong label guaranteeing purity and full net weight of contents.

The steel kegs were a great improvement and an instant hit. They kept the white lead in perfect condition (with no soaking of oil into wood and consequent hardening of the lead paste around the edges), allowed every bit of the pigment to be removed, were smaller and lighter and made excellent paint pails.

These packages remained essentially the same until 1916, when the company realized that it needed better brand identification. If the small trademark happened to be turned away from the viewer, the package was not distinguishable from that of any other brand. Therefore, pioneering a thoroughly modern principle, National Lead applied orange stripes, top and bottom, all around the container and, in addition to the trademark on the face, put the words "Dutch Boy White Lead" in two lines of bold orange block letters on two sides. The April, 1916, issue of *The Dutch Boy Painter* demonstrated to painters how, in addition to having distinctive orange and black colors, this package could be recognized by its lettering when viewed from any angle.

No further basic change was required until 1943, when, like all paint manufacturers, National Lead was forced to find a wartime substitute for steel. The containing of heavy, penetrative white lead was one of the toughest assignments for wartime paper packaging. National Lead Co. worked it out—with a heavy, all-fibre drum holding up to 100 lbs. of lead. The product, however, has now been switched back to the all-metal container.

With the recent introduction of the consumer line of blended, ready-to-use paints, the Dutch Boy paint packages now comprise two distinct groups.

The master painters' products (white and red lead, linseed oil, driers, colors and other paint materials) still follow the simple orange and black color scheme adopted in 1916, although with modernization of details. Paper labels are not ordinarily used in this group; the labeling is generally lithographed directly on the metal containers which, in 25-, 50-, and 100-lb. sizes, are still produced in (Continued on page 266)

Pressure-sensitive labels

NEW MACHINES FOR PRINTING THEM IN THE PLANT AS NEEDED

OPEN UP A WIDE NEW FIELD OF USEFULNESS IN MANY INDUSTRIES

Packagers in widely diverse fields are finding new usefulness and economy in the use of pressure-sensitive tape identification labels since the recent development of versatile machines which print the tape—including all variable information—in their own plants.

Until recently there had been no practical means of printing a small quantity of labels before changing variable information within the label. Because the purchase of printed labels to cover each variation in the information on a label meant stocking many different rolls of printed tape, a huge inventory problem resulted. Large commercial printers of pressure-sensitive tape often could not meet these requirements at a cost which made their use practical to the average packager.

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Because of the attractive appearance and durability of pressure-sensitive labels and due to the fact that this type of label is ideally suited for use where mechanical requirements cannot be met by ordinary paper labels or decals, there has been a definite need for a small printing machine capable of handling pressure-sensitive tape which would be available at an acceptable cost.

Such a machine has been developed. Now being marketed in two different models—one accommodating rolls of pressure-sensitive tape to to 2 in. in width and printing in an area up to $1^3/_4$ in. square; the other accommodating rolls up to 3 in. in width and printing an area up to 3 by 5 in.—the compact, light-weight machine is designed to allow very rapid interchange of

printing detail, color of ink and width and color of tape.

Both models are fully automatic. The operator has only to place the roll of tape to be printed in the machine, thread one end beneath the printing head and attach it to the rewind roll. She then adds the necessary lines of type or rubber plates in the printing head, places ink in the reservoir and sets the automatic counter for the number of imprints desired. The machine automatically feeds the tape, prints it, rewinds it and shuts itself off at the end of the predetermined run. The counter may be set to print any desired number of labels from one to a full roll without resetting. Production speed of the smaller machine is 115 imprints per minute; the larger, 100 imprints per minute.

With 15 different colors of tape available and 24 standard colors of special fast-drying ink, many combinations are possible. Special color inks may be ordered.

Ingenious placement of the roll holders adds two noteworthy features to the machine. A three-color effect can be obtained by the use of a double roll bracket which can be mounted within the machine so that a roll of narrow tape may be superimposed on a roll of wider tape, both being fed beneath the printing head at the same time, placing the imprint across both colors of tape. With another arrangement of a roll bracket on the outside of the machine, a roll of transparent tape can be laminated over the printed roll.

In the short time that these new machines have been

TABLE-TOP MACHINE makes 115 imprints per minute and rewinds rolls of tape automatically. It shuts off after any predetermined number of imprints. PHOTO COURTESY MARKEM MACHINE CO.

TYPE CHANGE can be made in a few seconds, using metal or rubber type or plates. At Cadillac, logo is constant; only part number is changed. Tape is available in 15 colors, and ink in 24, facilitating coding.

PHOTO COURTESY CADILLAC MOTOR CAR CO.





Color and coding identify



FOR APPLICATION, roll of printed tape is mounted in conventional dispenser yielding predetermined one-label lengths. At the Hood plant pints of ice cream coming on conveyor are bagged.



ICE CREAM CUPS at Hood are bulk packed in cartons immediately on filling. In this application the tape serves the double purpose of sealing and identifying the contents throughout the freezing, storage and delivery steps. "Van" imprint means vanilla.

available, several companies have adopted them as solutions to widely differing labeling problems.

H. P. Hood & Sons, a large dairy and ice cream manufacturer in Boston, packs individual containers of ice cream into bulk packages that require labels identifying flavor, size, number of slices-if it is cut brickand brand name of the individual ice cream containers. The company previously used two methods of adding these variables in labeling the bulk package. For special items a rubber hand stamp was used, but this method was not particularly conducive to legibility and necessitated having stamp pads, ink and a quantity of hand stamps in the packaging department. The other method was to use pressure-sensitive tape for the standard items, printed by a commercial printing concern. This method, too, had disadvantages: large inventory of printed rolls for each label change, high cost of printed tape, inconvenience of ordering ahead and inability to make up labels at a moment's notice.

Hood installed the smaller model of the new machine and established a systematic identification label plan combining colors of tape, colors of ink and printed letters. In this system, flavor is identified by printing abbreviations of the flavor name, number of slices is indicated by a number printed after the flavor abbreviation, while brand names and sizes of individual containers are indicated by different colors of tape. For example, VAN, CHO and STR indicate three different flavors. VAN7 on the strip indicates there are seven slices of vanilla ice cream in a cut brick. One brand of pints, cones and cups is labeled with green tape; quarts of the same brand, blue tape. Other variations are shown by tape colors or color of the ink.

In addition to solving the problem of label informa-

tion variations, the labels aid their truck delivery men in distinguishing the different containers, since the opaque ink on the glossy tape stands out boldly.

The Rex Hosiery Finishing Co., Philadelphia, has found the new tape printer ideal for making labels carrying size, color and length of its stockings. These pressure-sensitive labels are used to seal the flap of the cellophane envelope in which the stockings are packaged. One of the advantages the company has found is that the label can be peeled from the envelope when it is

TIRE PROBLEM was solved for Goodyear and paper wrapping eliminated by pressure-sensitive-tape labels which adhere firmly to tire tread. Variable information, which is printed in plant, includes tire style, rib, size and ply. PHOTOS COURTESY GOODYEAR TIRE & RUBBER CO.





types of ice cream



"VAN 8" IDENTIFIES these cartons in storage room as containing pints of vanilla ice cream, eight slices to the pint. The label is so positioned on the carton that some portion of it shows no matter how the carton is placed, which aids truckmen in distinguishing carton contents.



STOCK SHELF shows variety of colors and codings used by Hood. Color of tape tells whether ice cream is pint, quart or cup; brick or sliced; brand name; grade.

opened for customer inspection and then re-sealed without tearing either the label or the bag. This equipment is also used in printing special labels for special hosiery orders where the number required is not large enough to warrant ordering labels or printed cellophane bags.

In a very different field, The Goodyear Tire & Rubber Co., Akron, Ohio, uses the larger model to print labels for tires. With the discontinuance of the paper wrap on black side-wall tires, Goodyear found it necessary to apply a label directly to the tread of a tire. The

NOTHING ELSE would stick to oily Cadillac automotive parts. Pressure-sensitive-tape labels, printed as required, identify the part number and adhere firmly with wrap-around; they strip off cleanly from the part when it is ready to be used. Photo courtesy cadillac motor car co.

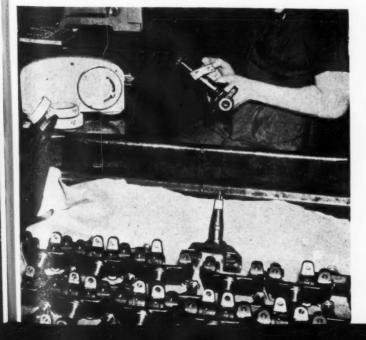
company found that gummed paper labels were entirely unsatisfactory for this since they did not stick securely and tires were often received by their dealers without labels. With the pressure-sensitive label, they report few cases where the label is missing or loosened; it stays on until removed by the buyer. Printed with the Goodyear name and winged-foot trademark, plus the tire information, the labels offer an additional method of increasing user recognition.

Until this new equipment was available. Goodyear

Until this new equipment was available, Goodyear could not use pressure-sensitive labels economically or effectively because of the wide variety of tire sizes, treads and quality. The expense of purchasing small quantities of printed tape and the inventory problems of obsolescence, deterioration and procurement, have been eliminated through the use of this new method.

Another user in the automotive field, Cadillac Motor Co., is printing identification labels for thousands of different parts. The pressure-sensitive labels are easily applied to sheet metal surfaces, to the surfaces of brake drums, axle housings, muffler exhaust pipes, etc. They are even wrapped around oily surfaces such as the axles themselves, since the tape band adheres to itself if more than one complete circle around the oily part is made. The labels can be removed easily when the part is installed in the car without leaving any mark or otherwise affecting the special finish.

The experience of these four companies indicates the potentialities of further use of pressure-sensitive tape for identification labeling when it can be economically handled in the plant.



Credit: Tape-printing machines, Markem Machine Co., Keene, N. H.

Films for tomatoes

ACETATE HAS VITAL 'BREATHING' QUALITY, AND IMPROVED METHODS

OF MACHINE HANDLING ARE EXTENDING ITS POPULARITY. By William F. Cullom*

Legend has it that the tomato was the "love apple" that tempted Adam and Eve right out of Eden. That it is still tempting their progeny is evidenced by its universal culture. It is one of the big farm money crops and today, with hothouse culture and improved shipping, ripening and pre-packaging methods, it is usually available in all seasons anywhere in this country.

It is no legend that the tomato was one of the first packaged fresh produce items. Perhaps because of its year-around availability and its vast market, the technique of tomato packaging has been most carefully developed with a view to providing the best possible environment for the vegetable, an economical and protective package for the broker and a sales-appealing package for the retailer.

Thus, the tomato package provides a valuable precept for all produce pre-packaging and some of the things the tomato packers have learned through their experience with films, trays, cartons, wrapping machines, etc., may well be studied in relation to other produce items, even though the various items differ radically in their physical requirements.

Tomato growing for fresh packing is big business. The Bureau of Agricultural Economics of the Department of Agriculture reports that in 1947 a total of 243,870 acres was devoted to tomatoes for fresh food purposes alone, yielding 764,000 tons valued at \$87,000,000 on the farm.

Tomatoes in consumer units first appeared in about 1930, packed in folding boxes with die-cut openings, but without film covering the window. Packaging started on the Eastern Seaboard and gradually spread to Southern, Midwest and Far Western markets. Today bulk tomatoes are rarely seen outside of local growing seasons. In Northern cities all out-of-season tomatoes are generally unit packaged. From 60 to 75% of the fresh tomato crop is sold pre-packaged, according to latest estimates. This is a high percentage, considering the estimate of the Domestic Distribution Department of the United States Chamber of Commerce that of the total volume of all fresh produce items sold at retail in 1948, only about 20% was pre-packaged.

The latest estimate of the growth of tomato packaging is that made by Mrs. Beulah Robertson, packaging specialist for the Department of Agriculture, speaking before the recent Pittsburgh meeting of the National League of Wholesale Fresh Fruit and Vegetable Distributors. Eighty-five per cent of the tomatoes now sold in retail stores are pre-packaged, she said.

While the early die-cut boxes provided a unit package for three to five tomatoes, they afforded limited protection from dust and handling. By the middle '30s, however, the die-cut carton had acquired a film window. In many sections of the country this popular container, combining visibility with rigid protection, is still preferred.

Most of the window materials available at first either were not completely transparent or had very little dimensional stability, so that on shrinking the box was

 \ast Director of Sales, Transparent Films Dept., Plastics Division, Celanese Corp. of America, New York.



WINDOW CARTON was the first package used for tomatoes. It provides good ventilation and, with acetate film used as the non-fogging window material, it is still a very popular package.



REPRESENTATIVE GROUP of pre-packages for tomatoes using cellulose acetate film either as an overwrap or as a window. Acetate film can be handled on automatic machines and its physical properties appear ideally suited to the requirements of tomatoes. Its clarity, dimensional stability, fine printing qualities and lustrous, glossy finish find favor with tomato packers. COLOR PLATES COURTESY CELANESE CORP. OF AMERICA.

often pulled out of shape. When the earlier formulations of cellulose acetate films were developed, their characteristics of dimensional stability and clear transparency recommended them to this market.

The development of improved automatic overwrapping machinery, plus the increase in consumer interest in unit containers, naturally brought about other types of packaging. In about 1934 the transparent overwrapped tray or boat appeared and, with it, a variety of wrapping materials. With conventional heat-sealing films, it was possible to overwrap the tomatoes automatically on existing machines. At that time there was little or no knowledge of physiological reactions of fresh food after packaging. Packaging of fresh foods was not then the science it has become today.

However, the intervention of the war, which retarded the development of materials and packaging machinery, did give time for scientific experiment. Meanwhile, the converters' and produce brokers' interest in transparent films remained high. Realizing the potentiality of consumer preference for pre-packaged produce, they wanted to be in a position to meet this demand, using the latest and best materials for the purpose.

A material best adapted to the packaging of tomatoes, it was found, should have permeability to allow the venting of harmful gases and the entrance of beneficial oxygen. Tests conducted in the Agricultural Experiment Station of the University of Maryland by Dr. L. E. Scott, Professor of Vegetable Crops, were reported upon as follows:

"Rutgers tomatoes of firm ripe stage were packaged

 $^{^1}$ "Atmospheric Conditions in Consumer Packages of Vegetables," ${\it Pre-Pack-Age},$ Sept., 1947.

within a few hours after harvesting in several types of cellophane and in Lumarith (cellulose acetate). Gas analysis of the packages was made after four days storage at 70 deg. F. At this time all of the cellophane packages except the uncoated stock showed carbon dioxide accumulations between 11.0 and 17.0%, and oxygen depletion between 0.4 and 1.2% in the enclosed atmosphere.

"The uncoated cellophane and the Lumarith packages were much lower in carbon dioxide, higher in oxygen content and, when opened after four days' storage, only the tomatoes in these two packages were acceptable in taste. All of the tomatoes in the other packages were decidedly off-flavor, with a fermented acid taste making them inedible. Depletion of oxygen content in the packaged atmosphere from the normal 20.8% to as low as 1% or less in the impermeable films had resulted in the development of anaerobic respiration which, in the case of tomatoes, produced the extremely bad taste."

It can be seen that the tomato presents a rather special packaging problem. The products of metabolism—namely carbon dioxide and other organic gases, plus small amounts of water vapor—are given off and oxygen is required in almost equal amounts to maintain normal respiration. Use of gas-impermeable films can result in a build-up of carbon dioxide within the tomato package which actually prevents the tomato from progressively ripening. Anaerobic respiration, in which the starches and sugars turn to alcohol, results in off-tastes and the early breakdown of the delicate cells of the tomato.

According to a report published² by the late Dr. C. O. Bratley, former senior pathologist and at that time director of the New York City Market Pathology Laboratory maintained by the United States Department of Agriculture, "There is marked danger of affecting the flavor and texture of the tomatoes if the concentration of carbon dioxide in the package rises above 10%."

² "Perforate Cellophane for Tomato Packages," Bulletin of the United Fresh Fruit & Vegetable Assn., Nov. 14, 1946. Dr. Bratley's report pointed out that this danger was amplified by rising temperatures in spring and early fall.

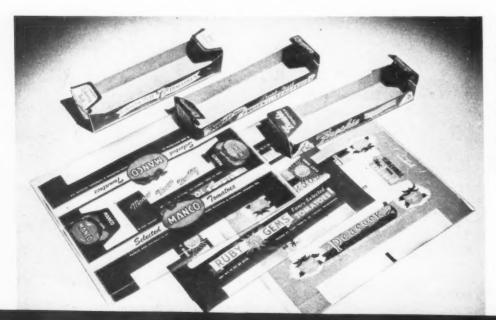
In a report³ dated June 7, 1947, the Department of Agriculture described a series of packaging experiments utilizing different types of films as overwraps for various fresh produce items. Tomatoes were packaged in gasand moisture-impervious wraps, as well as in permeable cellulose acetate film. The 1-lb. trays of tomatoes, in both types of films, were maintained at room temperature for a period of four days. At the end of the four days it was found the tomatoes packaged in the impermeable films exhibited a 16.8% concentration of carbon dioxide within the pack. These tomatoes were found to be hard, off-taste and had not advanced past the pink stage at which they were packaged. Quite differently, says the report, the tomatoes wrapped in acetate film had a carbon dioxide concentration of only 5.6% within the package, had advanced to the red-ripe stage and were of a ripe, meaty texture with what was described as "full flavor."

Thus the necessity for permeability was established. When permeable films were not available, some packers tried to solve the problem by punching holes in the wrap. Wrapping-machine attachments were devised to do this.⁴ However, this has proved in many instances to be a poor alternative for the following reasons:

The fruit or the carton itself often blocks the airholes, rendering them useless, and hole punching has been found to weaken the wrap appreciably, often resulting in broken packages. It detracts from the package appearance and reduces protection from dust and other forms of contamination, many packers feel. From the standpoint of operations, hole punching has been found to reduce the machine's efficiency to a considerable degree.

With the greater availability of cellulose acetate film in the years since the war, more and more tomato pre-

³ Report by Donald R. Stokes, Division of Marketing and Transportation, Bureau of Agricultural Economics, at a meeting at the Bureau of Plant Industry Laboratory, New York Experimental Station.
⁴ See "Tomato Wraps that Breathe," Modern Packaging, March, 1945, 101



ECONOMICAL TRAYS provide a completely sealed package when overwrapped with acetate film. In some cases the wraps are colorfully printed—leaving ample clear areas for visibility—and in others a printed tray is used with a plain wrap. Some trays are rapidly set up by automatic machines. Permeability of the film is particularly important in a sealed package.

packagers have turned to that material as the best answer to their problems. It is safe to say that wherever machinery to handle it is available, acetate is the preferred film for tomato packagers, whether used as a window or as a complete overwrap.

In his recent talk on "The Future of Plastic Films," before the National Conference of the Society of Plastics Engineers, M. R. Gerow of the Reynolds Metals Co. gave special recognition to acetate's suitability for tomatoes when he said: "A very definite mention must be made of cellulose acetate and its growth in the packaging of tomatoes and like products, due to its ability to breathe. . . . Each produce item has its own characteristics and evolves carbon dioxide at different rates. To date the film that gives the best breathing characteristics as a film is cellulose acetate."

In addition to this valuable "breathing" property, acetate film has been found to have other advantages from the merchandising standpoint. Being permeable to water vapor, it does not tend to collect condensed moisture on the inside surface of a wrap or window, obscuring the customer's view of the fruit, as do the impermeable films. Generally, any gas-impermeable film is highly resistant to the passage of moisture and water vapor also, and this "clouding" effect is inescapable when the package is subjected to changes in temperature during shipment and handling. Since overwrapped packages are virtually airtight, the only escape for moisture must be through the film itself. In window boxes, which are seldom airtight, condensation is less of a problem-but here a moisture proof film often is not suitable because of its tendency to shrink and wrinkle, whereas acetate is stable, flat and will maintain the crystal clarity of a true window.

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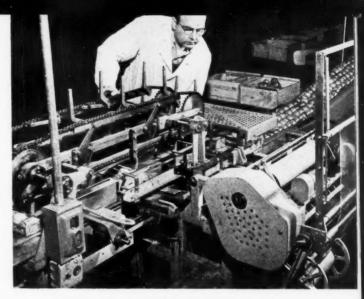
age.

Introduction of new cellulose acetate formulations has accelerated the trend to machine packaging of tomatoes with this material until today 37 states have at least one major packer wrapping tomatoes in acetate on automatic equipment.

While heat sealing on automatic machinery running cellulose acetate film is now possible with careful regulation of heat, the majority of these operations use solvent sealers. Package Machinery Co. developed solvent sealers for their machines many years ago and Hayssen Mfg. Co., working in cooperation with the Engineering, Research and Development Dept. of Celanese Corp., has equipped its automatic wrapping machines with solvent sealers and static eliminators.

Successful wholesalers now pre-packaging tomatoes are legion—as is testified to by the illustrations accompanying this article. The pictured packages represent only a few of many brands being marketed today. Large chain retailers throughout the United States such as American Stores Co. and Safeway also are engaged in this operation.

The assurance exhibited by the retailer that in prepackaged tomatoes he is offering the best in protection and quality is testimony to the cooperation that brought about the widespread pre-packaging of this food.



MACHINE WRAPPING trays of tomatoes in American Stores' pre-package plant at Kearny, N. J., is Package Machinery Co. FA model with solvent sealer. Similar high-speed machines are used by many repackers and wholesalers.

The desire of the grower to get the most from his quality crop is multiplied many times over by the other factors in packaging. Painstaking research, receptive minds of the converters, packers and retailers, the skill of machine manufacturers and of raw materials producers—all have combined to bring the best to the consumer. In tomato pre-packaging, the packaging field has an object lesson in successful cooperation.

Acknowledgment: Contributors of sample packages illustrated in this article include Shellmar Products Corp.; Milprint, Inc.; Container Corp. of America; Associated Folding Box Co.; Standard Folding Trays Corp.; Fibreboard Products, Inc., and Texas Paper Box Co.

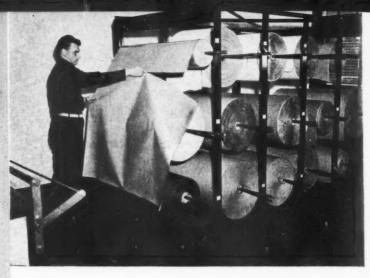
AMERICAN STORES package is a printed tray with clear acetate overwrap, for maximum display of tomatoes. The acetate's "breathing" quality helps maintain fruit at its peak condition.



PAPER CONTROL LABORATORY

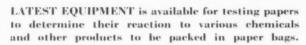
ITS FUNCTIONS BECOME IMPORTANT AS
SPECIFICATION OF PACKAGING PAPERS
CONTINUES TO GROW MORE TECHNICAL.

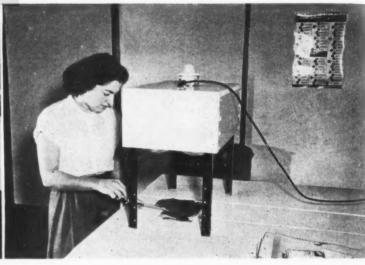
By G. D. Salisbury*



PAPER SAMPLES are kept on rack in bag-plant laboratory. Lab assistant takes sample of treated kraft to be tested, then made into bag and tested for performance.







WEATHER EFFECTS are simulated. Here, paper coated with mud is being subjected to rays of a battery of heat lamps. Test had been in progress 6 weeks when this photo was taken.

Great strides in the development of papers for special commercial and industrial uses and the expanding application of paper shipping sacks, small paper bags, case liners and paper covers have brought this versatile product into the realm of the expert laboratory technician. For there are hundreds of different types of paper, just as there are hundreds of uses for it, and each type possesses certain chemical and physical characteristics which make it suited for one given task, unsuited for another.

A sound knowledge of its properties is essential to the correct selection of a paper that will best perform the packaging job assigned to it. In bag manufacture, a paper that is ideal for spinning into a yarn for the manufacture of open-mesh woven paper bags would not be satisfactory for packaging an active chemical product; the paper made into small bags for flour would not

serve in making the wet-strength paper bags used for the handling of ice cubes and crushed ice.

Evidence of the stress which paper-package manufacturers are placing on laboratory determinations is the new Paper Control Laboratory which Bemis Bro. Bag Co., St. Louis, has added to its existing experimental and testing facilities. The new Bemis laboratory is under the direction of R. B. LeRoy, who has spent much of his time with the company in developmental and research work.

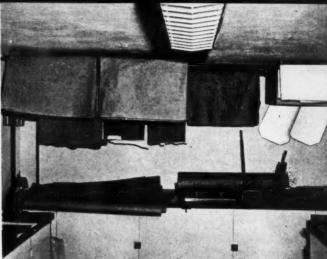
The pictures accompanying this article show some of the steps being taken by the bag industry to discover new applications for different papers, to improve on existing constructions and to custom-build paper bags for specific uses.

It is not always easy, for example, to find a paper that will be waterproof, resistant to a certain chemical, strong enough to contain a heavy commodity, tough

^{*} Bemis Bro. Bag Co., St. Louis, Mo.



ILLUMINATED from below by fluorescent lights, this sample of treated paper is placed on glass-top inspection table where it is studied for fibre groupings and for detection of flaws.



CONDITIONING ROOM where paper and bag samples are held at a constant temperature of 63 deg. F. and 50% R.H., in accordance with TAPPI standards.

ALL PHOTOS COURTESY BEMIS BRO. BAG CO.



ADHESIVE UNDER TEST, chosen from a wide available selection typical of those used in bag making, is applied to bag seam, after which seam is dried under weights.

enough to withstand rough handling and meet other exacting requirements. Yet every day the bag industry is faced with similar problems to provide efficient, economical containers for an endless parade of commodities.

In determining the physical characteristics of any paper for purposes of comparison, it is essential that tests be made under standard atmospheric conditions. Papers, and consequently paper bags, are strongest when they contain the proper amount of moisture. Allowing the moisture content of paper to drop below the normal 6 to 7% means loss of maximum strength. Papers which have been permitted to absorb more than the optimum moisture would also be weakened and their remaining strength unevenly distributed.

For these reasons, all physical-characteristics tests at the Bemis laboratory are performed in a room which is held at 50% relative humidity at controlled tempera-

ture and all papers, before being tested, are kept in this room until their condition reaches an equilibrium with the temperature and humidity-controlled air.

After the paper has been properly conditioned it may be subjected to any or all of the following tests, depending on what features are of importance to the study being undertaken. The thickness of the tested paper is measured with a micrometer and its basis weight is accurately determined on a ream scale. Small samples may be treated with a special dye which penetrates and outlines the individual fibres, permitting them to be studied under a microscope.

A Schopper tensile tester is used to measure the tensile strength of paper in two directions. Because of the way all machine-made papers are produced, there is an unavoidable tendency for a larger percentage of the cellulose fibres to align themselves in the direction the machine is moving rather than crosswise to the machine. The result is that all papers (except some of those made by hand) have greater tensile strength in one direction than in another. This factor is of utmost importance in packaging and fibre alignment must be carefully considered in drawing up the designs and specifications for bags to do a given packaging job.

Bursting strength is determined on a Mullen tester, while another instrument measures paper stiffness. A penescope is used in making grease-penetration tests and a pH meter detects acidity or alkalinity in paper. Softness, porosity and smoothness are measured on yet another type of delicate instrument. Pick-wax equipment determines bonding strength between clay coatings and base paper stock, and a glossmeter electrically registers the amount of gloss on paper samples.

Depending upon the purpose in mind, tests may also be made to discover percentage of stretch, residual strength after wetting, resistance to tear or abrasion. It is sometimes necessary to devise special tests when standard procedures do not supply all desired data.

To correlate physical properties of a paper with its probable performance in actual service requires a care-

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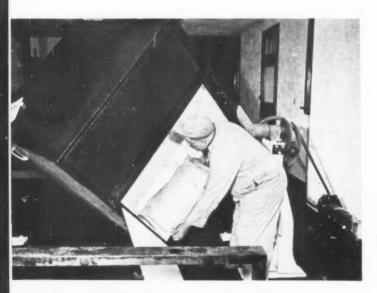
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BAGS ARE FILLED with product and stitched shut for physical handling tests. Machine can apply sewn bag closures with filler cord, a variety of tapes and plain chain stitch. Laboratory has a tape rack, synchronized conveyor belt, multipurpose sewing head and wax-dipping table where sewn bag closures are made water-tight.



ABUSE TEST includes tumbling in drum which makes seven revolutions per minute, tumbling the bag from side to side as well as end over end.

SMALL PAPER BAGS are filled and closed on the laboratory equipment illustrated here. Pasted closures are manually formed and applied to bags.



ful balancing of many factors. Say, for example, that a customer wishes to obtain greater shelf-display advantages for his product by the use of a high-gloss paper bag printed with glossy inks. It would be a fairly simple matter to find a number of gloss papers to give the desired sparkle to his package, but before the laboratory can select any one paper for the job it must find the paper that will also meet a dozen or more other important considerations. In addition to the high gloss, they must be sure that the paper will fold without cracking, that it is sufficiently stiff to hold its shape when filled, that it does not present insurmountable production problems, that it will perform well on the filling machine, possess the necessary strength and be sift-proof.

The printing qualities—the way ink is absorbed by or lies on the surface—must be considered and an adhesive that will bond secure seams and closures on this particular paper must be chosen.

It can readily be seen from the foregoing that the careful consideration of each of many factors is of prime importance in selecting the right paper sheet for the right task. Of course, not all papers have to be tested in all of these ways, but the well-equipped laboratory must be able to make any of the tests.

Having completed the examinations on physical properties, paper samples are made up into bags and put through a series of performance tests. These bags are filled with whatever commodity they are intended to carry and given controlled rough treatment to see how they will stand up in actual service. Various devices are used to approximate the abuse to which bags might be subjected. These include machines which drop the tested bag from different heights, a tumbling machine which constantly tumbles the bag from one metal surface to another as it revolves, tanks for submersion tests, devices which furnish abrasion, snagging and puncture hazards—these and whatever other tests ingenuity can provide.

To show what can be done, the Bemis laboratory director, Mr. LeRoy, on one occasion designed and built a multiwall paper bag which safely carried 100 lbs. of flour over Niagara Falls. The bag was launched into the river a half mile above the Falls, withstood the 167-ft. drop, withstood the pounding it received in the whirlpools at the bottom and was recovered after 7½ hrs. in the water, intact and capable of being shipped as a commercial container.

On another occasion Mr. LeRoy made a multiwall paper shipping sack, filled it will 50-lbs. of a free-flowing granular chemical and dropped it out of an airplane flying over an airport runway. This bag, too, remained intact and showed no damage except some abrasion where it had slid along the ground after impact.

Neither of these feats would have been possible if the necessary qualities had not been built into the bags, which demonstrates the importance of knowing as much as can possibly be known about the materials with which the manufacturer fabricates bags or other paper containers.

Spark for spark plugs

CHAMPION GETS VISIBILITY

PLUS PROTECTION WITH A PLIOFILM-WRAPPED LOCK-TAB TRAY

A radical departure in its field is the new transparent pack for Champion spark plugs, consisting of a lock-tab folding tray set up by machine and overwrapped with Pliofilm by a machine specially adapted for the purpose. It serves the double purpose of giving visibility appeal to the product and protecting it from dust and corrosion.

Previously, when the spark plugs were packaged in a conventional folding paperboard tuck-end box, customers had the habit of opening the box and examining the plug. Perspiration from their hands might corrode the metal points. Now they can examine the plug from all angles without opening the package and the heat-sealed covering of tough transparent film keeps any dust, moisture and corrosive gases from entering the atmosphere in the package.

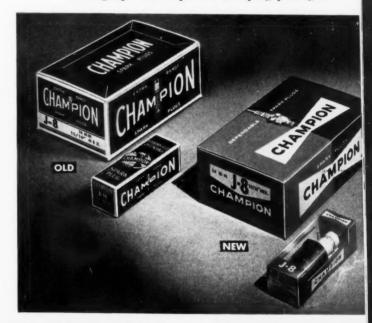
An extensive modernization of the trademark logotype and labeling for both the individual spark plug package and the display carton has simplified the overall design for better visual effect, in keeping with the new functional appearance of the plug package.

The tray is the patented type having a lock-tab arrangement on the ends which gives it rigidity. It can be economically formed from a flat blank automatically, using a special machine. A standard model high-speed wrapping machine was specially adapted with the aid of the machine manufacturer to handle the heat-sealing Pliofilm 120-NZ. At the beginning of the packaging line the trays are automatically set up, then discharged onto a conveyor line which takes them past the operators, who manually place a plug in each tray, and thence to the infeed of the wrapping machine. At the end of the line, girls pack the wrapped trays in

folding display cartons, each one holding 10 trays. Equipment on the line is synchronized to handle 85 to 90 packages per minute.

CREDITS: Design, Lippincott & Margulies, Inc., New York. "Kliklok" trays, Container Corp. of America, Chicago. Trayforming machine, Bemiss Jason Co., San Francisco. Pliofilm, Goodyear Tire & Rubber Co., Akron, Ohio. Wrapping machine, Model DF-1, Package Machinery Co., East Longmeadow, Mass.

> OVERWRAPPED TRAY for individual package puts spark plugs in a new eye-appealing visibility pack. Display carton for 10 individual packs has been redesigned with modernized art work "backing up" the impact of the plug package.



HIGH-SPEED machine shown in packaging line has been specially built to handle the Pliofilm overwrap. Trays are automatically formed on machine at beginning of line (far left).

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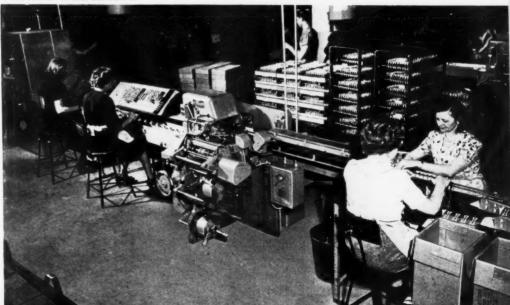


PHOTO COURTESY PACKAGE MACHINERY CO.

DESIGN

Tumblers with bee motif for honey



When glass tumblers are selected as containers because of their re-use feature, it is important to make sure that the shopper sees the re-use possibility when the tumbler is serving as the package. On their Land-O-Lakes honey package, Honey Sales Co., Minneapolis, Minn., carefully confines all informative copy to the closure. The tumblers themselves, unmarred by any paper label, have gay decorative designs of colored bees and hives or honey bear cubs climbing trees in search of hives. Done in the style of animated cartoons, these designs are applied to the glass by the ACL (applied color label) process. While appropriate for their contents, the design still suggests the end use even as the tumblers stand on store shelves. The printing area on the metal closure top is blocked out for maximum use.

Credits: Cap, Anchor Hocking Glass Corp., Lancaster, Pa. Tumblers, Hazel-Atlas Glass Co., Wheeling, W. Va.



Plastic tool box

A transparent plastic box for these XceLite reaming and screw-driving sets with interchangeable bits is designed primarily for display and sales purposes. Each bit is double headed with one head for conventional screws and the other for Phillips screws. When one end is in use, the other is tucked away inside the hollow handle. A metal insert molded into the handle receives the bit. All of these details can be seen by looking at the tools in the transparent box.

The tool manufacturer, Park Metalware Co., Inc., Orchard Park, N. Y., which also molds the boxes, selected tough, shatterproof cellulose acetate butyrate as the material for the two-piece box as well as for the handle, so that the box could have re-use value as a utility kit in a workshop. Its handy size, 8 by $2^{1}/_{8}$ by $1^{1}/_{8}$ in., suggests a variety of uses other than as a permanent package for the tools.

XceLite brand name and company name are molded on the telescoping lid of the box.

Credit: Plastic, Tenite cellulose acetate butyrate, Tennessee Eastman Corp., Kingsport, Tenn.

HISTORIES

Gift package with Western flavor

Woody's "Taste Tray" is an eye-appealing package with an authentic Western flavor presented to fancy grocers and gift shop dealers by Mrs. Chapman's Home Foods, Venice, Calif. The tray is an artistic ranch style one with wooden horseshoe handles and the cattle brands of the old West burned into the polished wood. Pottery jugs, sealed with sealing wax, contain a salad oil, wine vinegar, Woody's Smoke Flavor cooking sauce and pickled cherry conserves. A basting brush is placed alongside the jugs.

When the cooking sauce is packaged individually, the basting brush is bent across the 15-oz. jar top and attached to it by a cellulosic sealing band.

CKEDITS: Jugs, Lee F. Wollard Co., Glendale, Calif. Trays, H. C. Wentz, Pasadena, Calif. Cooking sauce jar, Container Service Corp., Los Angeles. Cellulose seal for cooking sauce jar, The Celon Co., Madison, Wis. Label, Mercury Press, Hollywood, Calif.



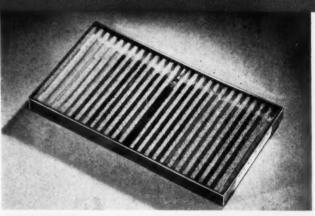
Polystyrene foam platforms

A new and unusual application of polystyrene foam is its appearance as ribbed platforms to hold fine drawing crayons imported from Czechoslovakia. L. & C. Hardtmuth, Inc., Bloomsbury, N. J., who package and distribute the crayons in this country, find the lightweight foam insulates the brittle crayons from shock. The platform of polystyrene foam, made in three pieces to fit the length of the box, is cut from a block of the material with 25 depressions on its face to fit the diameter of each crayon and the crayon holder.

Sensitive to the demands of its buyers, the company capitalizes on the attractive appearance of the colored crayons "bedded" in the foam insert by using a transparent acetate cover on a set-up box so that artists can check the exact shade offered in the package.

A small paper label added to the end of the transparent cover provides style, name and price information for stock shelf identification. The paperboard bottom is covered with black flint paper.

CREDITS: Platforms, Blue River Plastics Mfg. Corp., New York, using Dow Styrofoam. Boxes, Henry Paper Box Co., Brooklyn.





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The slack-fill problem

COURTS' THREE REBUFFS RAISE QUESTION WHETHER LAW, A GUARDIAN

OF CONSUMER CONFIDENCE, CAN BE ENFORCED. By Wallace F. Janssen*

Have the Federal Courts "let down the bars" against slack filling?

That's the big packaging question raised by recent efforts to enforce the slack-fill section of the Federal Food, Drug and Cosmetic Act. Three times the Government has gone into court in contested seizures of allegedly slack-filled packages. Three times the courts have dismissed the libels. Some observers are beginning to wonder if this important provision of the law is enforceable. If it isn't, some of the packaging industries1 may be in for an epidemic of slack packaging. And that could hurt consumer acceptance of all packaged products.

On the other hand, these court decisions are clearly considerate of industry's problems. Quite consistently the courts have held that production problems—the practical limitations of packaging machinery, containers and products-must be taken into account when deciding whether a package is slack filled to the point of illegality. More than that, the courts are definitely inclined to take the position that consumers are sufficiently familiar with machine-packed merchandise to make allowances and accept without question packages which are not filled to 100% capacity, as might be possible if they were packed by hand. In effect, the courts are writing into the "case law" of packaging the protective qualifications which industry sought when the Federal Food, Drug and Cosmetic Act was being considered by Congress.2 How liberal the courts have been is shown by the fact that in the three contested cases mentioned above the packages were found to have from 33% to over 50% slack space.

The Federal Food, Drug and Cosmetic Act defines a product as misbranded "if its container is so made, formed or filled as to be misleading in any particular" (Sec. 403 [d]). Since there is no provision for regulations, the interpretation of this provision is left to the understanding of the manufacturer and, in the last

analysis, to the courts. And up to now the courts have had few opportunities to apply this provision to specific packages. In most instances where Federal officials have encountered slack filling they have found industry eager to make any improvements which are practical from a production standpoint. Many fill-of-container problems have been worked out by negotiation without resort to legal processes.

An outstanding example of such cooperation was the development in 1940-41 of the Bristol-Lund trigonometric formula for the sizes of tooth paste cartons, based on the length of the clip with the tube in a diagnonal position. The formula, worked out by William E. Bristol, Jr., of the Bristol-Myers Co. and J. Y. Lund of the Lambert Pharmacal Co., made possible reduction of carton volume ranging up to 54% for the same quantity of tooth paste. Large savings of paperboard were a valuable by-product, especially in the war years. A better shipping package also resulted.

In 1940 spice industry leaders came to FDA with a proposed minimum-fill factor of 85% for ground spices in shaker cans. Accepted by the Government, it virtually eliminated one of the most widespread consumer complaints of slack filling.3

Case of the root beer drops

The latest and most striking FDA slack-fill seizure case was tried in Boston last October. The court held that a carton of hard candy, similar to a cough drop package, was not slack filled within the meaning of the law even though it had 33% slack space.

The Up-To-Date Mfg. Co. of New York had shipped its Arden Assorted Candy Drops, Root Beer Drops (see p. 145) and other candies to a Boston consignee in boxes measuring $3^3/4$ by $2^1/2$ by $1^1/4$ in. to retail at five cents. The weight of $1^{1/2}$ ozs. was correct and was correctly displayed on the package. The Government seized the goods and sought condemnation on the ground that the package was so slack filled as to be deceptive to the consumer.

Judge Charles E. Wyzanski, Jr., pointed out there was no question about the weight and no peculiar packaging problem in connection with the shape of the lozenges. He said: "There is no statement as to the number of pieces of candy. Most of the boxes contain

^{*} Mr. Janssen is Managing Editor of F-D-C (Food, Drug and Cosmetic)
Reports from Washington and has been a close observer of activities of the
Food and Drug Administration since the inception of the present law in 1933.
From 1934 to 1943 Mr. Janssen was editor of The Glass Packer.

¹ Slack fills are rarely encountered in bottled and bagged products and
processed canned foods. According to FDA officials, they are more common
in cartoned products, products susceptible to settling and those involving other
filling problems.

² Senate Report 1993, 73rd Congress: "This is intended to reach abuses which
have arisen in the packaging of food through the use of deceptively shaped,
formed or colored containers. It is likewise intended to reach deceptive
methods of filling—particularly those known as 'slack filling'—where the package is only partly filled and despite the declaration of the quantity of contents
on the label creates the impression that it contains more food than it actually
does. This provision is not intended to authorize action against packages of
food which are filled as full as is practicable under good manufacturing practice." (Similar provisions of the law cover drugs and cosmetics.)

³ See "Common Packaging Violations," by P. B. Dunbar and S. C. Rowe, Modern Packaging Encyclopedia, 1948, p. 164.

17 pieces. Some, however, contain 18 or 19. When 17 pieces are in the box and a reasonable time has elapsed since manufacture, the candy settles so that there is an average air space in the box of 33%."

Judge Wyzanski described the packaging operation in detail, as follows: "Each box in evidence was packaged by a standard packaging machine, manufactured by a third party, of the type used by a majority of the leading concerns packaging candy or cough drops intended to retail at five or 10 cents. Such a packaging machine is made with only slight variations necessary for each concern. The machine works in conjunction with a conveyor belt. The belt carries a flat piece of cardboard to the machine, which folds it into a box with an opening left at one end. The machine then inserts wax paper, turns the folded box into an upright position and passes it under a rotary disk. Above this disk pieces of candy are placed. The disk has 20 apertures which may be plugged up to regulate the number of pieces of candy which will drop into each box. Back of the place where the box stands under the disk is an agitator which jars the box during the time the candy pieces are falling through the disk. This aids the candy to settle in the box so that more pieces can fall into the box. After being under the disk, the box moves to a finger-like contraption which folds over the wax paper and closes the box.

"The process of manufacture is supervised by an operator who watches for spillage as the candy falls to the floor from the disk or box. The operator discards boxes which are overpacked. He does not add drops by hand. If he were to do so, he could often make the box contain at least 20 drops of the present style. Without such additions by hand it is admittedly practical to set the disk for at least 17 such drops. If the disk is set at 18 such drops, the machine occasionally jams. Moreover, at 18 drops the number of boxes which are overpacked and must be discarded is between 5% and 10% of the total number of boxes filled."

Lack of proof of deception

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Judge Wyzanski said there was "no evidence as to how many pieces of candy any consumer would expect to receive from a box of the type here involved." During the trial he asked numerous questions along this line, indicating that in his opinion the principal issue of the case was whether the consuming public had in fact been deceived or was likely to be deceived by the package.

In dismissing the case, the judge interpreted the law as follows:

"The question whether the package is misleading is a question of fact. And the standard is not whether experts, or men of peculiar training, experience, shrewdness or sophistication would be misled. (Cf. FTC vs. Standard Education Society, 302 U. S. 112, 116.) The standard is whether the container would be likely to mislead the ordinary purchaser of this type of merchandise, not one who was particularly attentive or prudent.

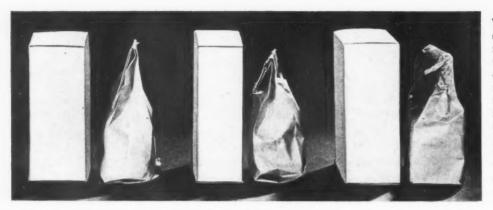
"But I do not go far enough to accept the argument, advanced by the Government, that the question is whether the package is so filled as to mislead an average five-year-old child who might expect the box to be filled to overflowing. Infantile anticipation is not the test. Rather it is what would be expected by an ordinary person—not necessarily an adult—who has been led to expect and desire machine packaging. Such a customer knows machine packing is more sanitary than hand packing. He knows it results in economies of mass production and that these economies are in some measure likely to be passed on to the ultimate consumer.

"Moreover, from buying various types of five-cent candies, such as cough drops and lozenges packed by machine in standard rectangular containers, he has come to expect some slack or air space. Indeed, he recognizes that tight packing would often solidify into a mass pieces which he would prefer to have separate. It is the expectation of a person who has that common degree of familiarity with our industrial civilization which furnishes the standard which Congress intended to be applied. Congress had no intention to require abandonment of reasonably efficient methods of mass production by machine. (See Sen. Committee on Commerce, 73rd Cong., 1st Session, Rept. 361, p. 9.)

"In the case at bar no evidence was introduced as to what an ordinary, non-infantile purchaser would expect. But in my view he would not expect any particular number of lozenges. As long as he received ordinary lozenges not obviously so eccentric in shape as to result in peculiar packing difficulties, and so long as he received approximately as many of these lozenges as could conveniently be packed in a standard rectangular

EXONERATED in latest Federal Court decision was this package of candy drops. Light shining through waxed-paper envelope shows extent of fill, also indicated by black line across opened carton. Slack was calculated at 33%. Boston judge held that the average person understands machine-filling difficulties and would not be misled provided net weight is accurately stated on package. He demanded that actual, not presumptive, proof of the deception be presented.





THREE leading brands of dessert mixes, picked at random from grocery shelves, with identification blanked out. In no case does contents of bag fill more than 50% of volume of carton. But a 1946 decision of Arizona District Court recognized special problems of this type of powdered product and held that there was no deception when net weight of contents and amount of finished pudding it makes were plainly stated on carton.

carton by machine, he would not in my opinion be misled."

Trial of the case took only one day. Judge Wyzanski was especially concerned whether there had been any "surveys" of any kind to show what a consumer would expect to receive and whether any consumers were misled or likely to be misled by the package. None of the witnesses could provide such information. In contrast to this line of questioning by the court, the U. S. attorney took the position that it was not necessary to show someone had been deceived—the package was slack filled per se and the only issue was whether it had been filled as full as commercially practicable. The Government contended that it was up to the manufacturer to show as a defense that he was operating according to "good manufacturing practice" and couldn't make any improvement.

FDA admits need for headroom

The FDA packaging expert, Sumner T. Rowe, conceded on cross examination that it would not be possible to fill 100% and that a certain amount of headspace is necessary to turn the flaps of the carton. An FDA inspector testified that he had operated the machine during a plant inspection and filled as many as 23 drops per carton, adding them by hand. During the trial the judge asked to see some of the present packages. Opening one he found 19 drops instead of 17. Opening another he found 18. Albert J. Dreitzer, president of the Up-To-Date company, then testified that the machine had been reset to fill 18 drops notwithstanding that this caused some loss of production. He said lighter weight waxed paper had been found necessary to do this. On cross examination the Government brought out that the company had reduced the net weight declaration from $1^3/_4$ to $1^1/_2$ ozs. Mr. Dreitzer agreed that the selling price of five cents made the addition of one or two drops an important item so far as cost is concerned.

The court asked how the company would fill the package if it could sell at 10 cents for 19 drops or more. Andrew Tehel, vice president and production manager, replied that they could not put more in without "rebuilding the machine, which means almost a new machine, which is not available at present." He said the

machines were built to order—that more drops could be packed, but that a bigger box would be necessary. Mr. Tehel also testified as to the company's experience with different shapes of candy. He said the machine had never been set to throw 20 drops except in test runs and that it wouldn't be economical to operate on that basis.

Two vital questions

Stripping the problem down to simplest terms, the courts seem inclined to ask these two questions in slack-fill cases: (1) of the Government: "Has anybody been misled?" (2) of the manufacturer: "Is this the best you can do?"

FDA wasn't satisfied with the decision in the Arden case. It sought a new trial on the ground that the Boston court applied "erroneous concepts of law" in holding that the statute was designed to protect "informed consumers."

FDA Attorney James B. Goding⁴ briefed the grounds for a new trial as follows:

- 1. The Federal Food, Drug and Cosmetic Act is designed to protect all consumers, including the ignorant, the unthinking and the credulous;
- 2. The test is not the number of individual pieces of candy any consumer would expect to receive in a given package, but rather whether the objective appearance of the container is a fair index of the quantity of candy it contains;
- 3. The burden is on the manufacturer to establish that the container involved is filled as full as practicable under good manufacturing practice and
- 4. The absence of regulations in no way invalidates the Government's claim.

Mr. Goding argued in his brief that Congress intended to protect people who do not have the slightest idea whether a package is filled by machine. He said that whether the package is machine filled is at most merely a part of the defense argument that good manufacturing practice was observed in production. In the trial brief the Government cited a famous Supreme Court decision to support the position that it is not necessary to prove that anybody has been misled—the mere likeli-

⁴ Mr. Goding resigned from Government service on Dec. 31, 1948, to enter private law practice in Washington. He did not participate in the actual trial of the Arden case.

hood of deception is enough. This proposition has never been sustained in a slack-fill case although it has been upheld in adulteration and labeling cases.

Two earlier cases

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The decision in the Arden case followed the pattern of the two earlier slack-fill cases, but the latter differed materially in the nature of the products and of the packages.

In February, 1946, the Arizona U. S. District Court found that a 50% slack-filled package was not deceptive in fact because of the special nature of the product (U. S. vs. 738 cases Jiffy-Lou Vanilla Pudding.) In his findings of fact Judge Ling held as follows:

That the container used is of a size which is recognized by the general public as a standard size for this and similar commodities and contains a standard amount of ingredients sufficient to produce and make a standard amount of finished product and the amount of finished product expected by the consuming public, and that said container plainly states on the outside thereof the weight of the ingredients contained therein and the fact that such ingredients will produce one pint of food when prepared for human consumption....

That, while said commodity fills only approximately 50% of the exterior container without allowance for space required by the inner removable package, the container used is sanitary, convenient to the user, and of a type reasonably necessary in packaging, handling and utilizing the product sought to be condemned; that the type of inner package used in packaging the commodity involved requires the use of an outer container larger than the inner package; that said container is not so filled as to be misleading.

On the basis of this decision, the Food and Drug Administration recently dropped two similar cases involving desserts packed by two of the largest companies in the business. Officials say that package changes and revisions in label wording had a bearing on this action. Another factor was FDA's inability to get conclusive evidence that consumers were misled by different sized packages of these products.

Quite elaborate packaging was involved in the Liberty Chocolate Co. case, second in the series which the Government has lost. FDA seized and sought condemnation of a shipment of cartons of "Benevento Brand Nougat, Net Weight 9 ozs." Each flat carton contained 18 smaller boxes, each containing a \(^1/2\)-oz. piece of nougat candy wrapped in waxed paper. The Government contended that the package was misleading because the candy itself occupied only about 45% of the volume of the outer container. The following exchange took place between the trial judge and U. S. Attorney Breen:

The Court: What is misleading about Exhibit 19. The package is marked plainly for contents. The small packages are marked as to what they contain. What is misleading about that?

Mr. Breen: That a package which has a capacity for 18 ozs. contains merely 9.

The Court: Is that the large package?

Mr. Breen: Yes. And again that the smaller package with capacity for 1 oz. is filled with but half an

ounce, the excess being space and paper. That is offered to the consuming public per se.

The Court: The consuming public are buying 9 ozs. when they see that package, aren't they?

Mr. Breen: That is all they are getting.

The Court: What is misleading about that, because it is a little bigger?

Mr. Breen: Because the package is big enough for more and would lead them to believe that it would contain more.

The Court: I am a consumer going into a store and I see a package, as presented by the Government. It says "9 ozs." on it. I don't know what is in it, whether there is a package inside it. It says "9 ozs. of candy." They are not selling the small parcels.

Mr. Breen: That is correct. They sell the large ones. The Court: How do I know what is inside there, whether there is a package wrapped in cellophane, or a little carton, or as here, 18 packages? It says "9 ozs." on there.

Mr. Breen: From the appearance of that on a store shelf, there is a rather large package and the printing on it is small. The consumers do not buy according to the small print, they buy according to that package.

The Court: You have got to show me something more than you have already to show it is misleading. Here it says right on it in plain English, with a net of weight of "9 ozs."

Dismissing the case, the Court said, "There is nothing, in the opinion of the Court, in the shape and size of the larger package, or the smaller packages, that would be misleading to a person, and there has been no testimony on behalf of the Government that such markings would be misleading or would be likely to be misleading to an average purchaser. Under all of the facts of this case, as I have indicated, and in the absence of the Government showing the Court any authority other than its plain statement that in its opinion such marking is misleading, the Court cannot as a matter of law say that the defendant has misbranded the product, nor can it say, as a matter of law, that the containers are so made, formed or filled as to be misleading."

On appeal, the FDA attorneys argued that compliance with the net-weight requirement of the law is immaterial in considering whether a package is slack filled. They said the lower court erred in considering that it was necessary for the Government to prove that consumers had actually been misled by the package.

Rendering its decision, the U. S. Circuit Court of Appeals for the 1st Circuit ruled in favor of the Government's interpretation of the law, but decided against the Government on the facts. It said it could not overturn the District Court's finding of fact that the package was not slack filled. It said that the issue in the case was "whether the containers of the article were so made, formed or filled as to be misleading, thereby constituting misbranding within the meaning of Sec. 403 (d) of the Act... There is no hard and fast rule as to what would constitute slack filling. Whether or not a 50% space in a particular package of (Continued on page 270)

How's your Moisture

APPLES — This
moisture proof bag
packaged on automatic machines — ideal
for self-service selling
— holds fruit in prime
condition

MARGARINE—Success of this "squeeze-mix" package proves Pliofilm's toughness

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If you're packaging a moisture-sensi-

Plan-T.M. The Goodyear Tire & Rubber Company



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tive product, it belongs in this picture! For further information on quality-protecting, sales-building **Pliofilm**, write: Goodyear, Pliofilm Dept., Akron 16, Ohio.

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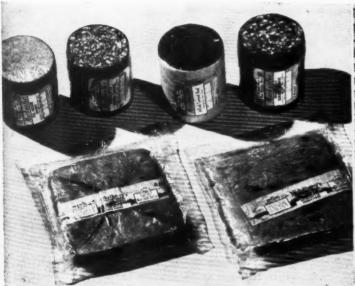
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We think you'll like "THE GREATEST STORY EVER TOLD" - Every Sunday - ABC Network



COLD CUTS—In economical, meal-size packages that eliminate waste ends



DRIED FRUITS - Keep tart and tangy far longer, in Pliefilm

Sterile-filling



STERILE FILLING by machine at Commercial Solvents Corp. Five times as much penicillin can be packaged per hour with the automatic filler as was possible by hand. Entire hopper section with parts can be removed for cleaning and sterilizing. Adjustment of dial on housing above hopper regulates speed.

PHOTO COURTESY COMMERCIAL SOLVENTS CORP

There has always been a need for filling machines that can be easily cleaned and sterilized after a production run. Cosmetic, food, chemical and pharmaceutical manufacturers particularly have demanded machines which can meet this requirement in addition to accuracy of fill and speed.

The need has been especially great in the drug field since the sudden development of antibiotics as a volume production item. With the manufacture of penicillin, for example, now being carried out on a mass-production basis, packaging costs are estimated to be roughly half of the selling price and the biggest element in the packaging cost is accounted for by the hand-filling operation—an operation which must be carried on under absolutely sterile conditions.

Several manufacturers of penicillin, including Commercial Solvents Corp. and Wyeth, Inc., have recently adopted a versatile new electrical filler which is said to handle from five to seven times as many bottles in an hour as was possible when the filling was done by hand. Designed with interchangeable parts that can be detached from the base in a minute, thereby eliminating 90% of the costly, non-productive time in cleaning and machine set-up, this new filler has opened the way to complete mechanization of penicillin packaging lines, its users say. Using a new principle for controlling the recycling of the auger, the new filler has an extremely accurate fill, the users having been able to establish weight tolerances of 2% as a rule.

The hopper, auger, auger shaft and funnels of the

IT IS ADAPTABLE TO ANY DRY, LIQUID OR VISCOUS FOOD OR DRUG

filler all are removable for sterilization. Short production runs can be handled efficiently, since clean-up and change-over time are reduced to a minimum. The hopper is made of anodized aluminum; the shaft, agitators inside the hopper and funnels are of stainless steel and the auger is of chrome-plated steel, so that rigorous cleaning and sterilization can be easily accomplished either by hot air or steam autoclaves. Reassembly of the parts is just as fast and easy as their removal.

All of the drug manufacturers are using a portable bench model of the filler, operating right in the sterile packaging room. This model, which weighs 150 lbs., can be operated manually, semi-automatically or completely automatically. At the plant of one penicillin manufacturer, two fully automatic machines are used constantly and a third is kept in stand-by condition for use on rush jobs. Each machine is capable of filling 300-mm. amounts of procaine penicillin powder at the rate of 50 bottles per minute, although normal operating speed is usually 40 per minute, since the feed-in of the bottles is done by hand. The change to automatic filling has reduced the total number of operators on all shifts from 75 to 20. Other companies report comparable labor savings.

In most of the plants using the new filler for antibiotics, the filling operation can be handled by two operators. At Commercial Solvents, where the machine is used, one operator feeds bottles under the orifice of the filling funnel, while the second operator stoppers the filled bottles and places them in the holding trays.

Auger speeds are adjustable according to the type of material being filled. This increases the flexibility of the machine since it can be used not only for dry powders, but also for liquids or viscous materials, in which case the auger is replaced by a rotor. Adjustment of weights can be made without stopping the run. In the housing above the hopper there is an electrical synchronous counter which controls the stop interval (filling time) of the screw feed (see photo at right). The counter has a dial and regulating knob on the outside which can be reset for different fills, measured in number of revolutions. Speed can be slowed down to 450 r.p.m. for heavy, sluggish materials or speeded up to 900 r.p.m. for light, talc-type powders. Maximum speed at which accurate fills are obtained is dependent upon maximum auger speed for that particular mate-

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Size of auger also controls the filling time and accuracy of fill. The smaller the tip of the auger, the

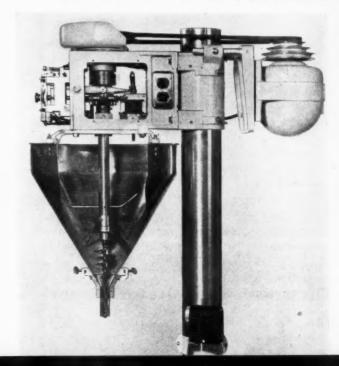
smaller the amount of powder dispensed. Augers are available in sizes ranging from $^3/_8$ to 2 in. for the bench models, with funnels matching each size, giving a maximum filling range of approximately 2 lbs. Agitators mounted on the auger shaft can be set at different pitches, depending on type of material. At one plant, for example, bottles are filled with one-gram and sevengram amounts of powder as well as the small 300-mm. size. When penicillin oils are filled, amounts as small as 1.5 cc. can be handled smoothly by the filler.

Original emphasis has been on the use of the filler for packaging dry drugs. Companies in the pharmaceutical field are now reported using it also for liquids, creams and ointments. The machine supplier reports that food processors will use the machine for a variety of powdered products such as cake mixes, powdered milk, spices, ice cream mixes and viscous materials such as shortening, cream cheese, ice cream, custard and similar products.

Although strict sterile conditions in the surgical sense are not required in food packaging, the machine's versatility and ease of cleaning are equally advantageous for use in that field.

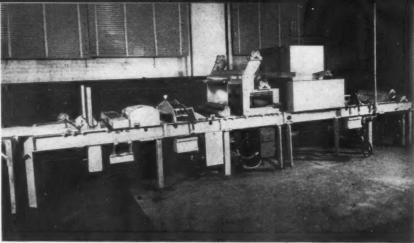
CREDIT: Filling machine, G. Diehl Maleer & Co., Devon, Pa.

CUT-AWAY VIEW of hopper and electronic counter shows arrangement of auger, agitators and the funnels, all removable. The entire unit weighs only 150 lbs., sells for about \$1,350 plus cost of interchangeable augers and funnels.





FIRST TO USE new heat-sealed, embossed unit pack is Lemel Vitamin C powder. Each foil pack contains enough for single use. Carton holds 20 packs and instruction folder.



NEW MACHINE handles entire operation at rate of 500 a minute. From right to left are supply roll of foil, preforming station, powder-filling station, introduction of top-supply rolls, heat-sealing station, feed and registration, slitting, cut-off and delivery belt.

New formed unit pack

HIGH-SPEED MACHINE MAKES SINGLE-USE PACKETS AND FILLS THEM

WITH POWDERS, PILLS OR LIQUIDS, USING FOIL OR COMBINATIONS

OF VARIOUS KINDS OF MATERIALS

The single-unit or individual-dose packet, as it has increased in popularity, has stimulated the development of high-speed automatic machinery to perform the packaging operations. One of the latest pieces of equipment to appear is a machine which fabricates two 26-in. widths of roll-fed aluminum foil into individual packets at a rate of 500 per minute. Each packet is embossed with the product name, filled with an accurately measured quantity of a hygroscopic powder, heat sealed, cut to size and delivered to a conveyor line for packing in folding boxes. The retail purchase unit is one of these boxes which holds 20 of the individual packets of powder.

This machine was installed for an initial run in the plant of the Serutan Co. and demonstrated its qualities on their new product, "Lemel," a powdered Vitamin C dietary product distributed by the Lo-Calory Food Corp., New York. It was found that the present volume of output of this product does not require the full-time operation of the machine, so it was decided to utilize the services of the maker of the equipment as a contract packager, thus permitting other manufacturers with similar products to take advantage of an unusual packaging service that affords low-cost mass production.

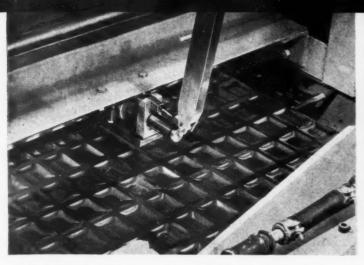
The machine is designed to produce packets made of

extensible material, most widely used example of which is aluminum. It was aluminum on which most of the development work was done. A maximum draw of $^{5}/_{8}$ in. is possible and packets may be formed up to 6 by 26 in., varying in depth of draw from $^{1}/_{16}$ in. to the maximum of $^{5}/_{8}$ in.

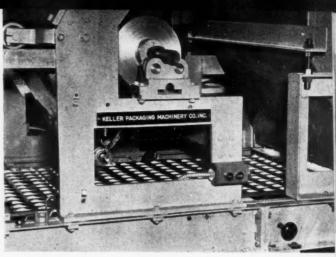
The Lemel packet for vitamin powder uses 0.002 and 0.0015 plain aluminum foil and the finished size is $2^9/_{16}$ by $2^1/_8$ in., with a depth of $^3/_{16}$ in.

The aluminum-foil packet is the first commercial adoption of the process, though experimental work has been conducted which, it is believed, clears the way for later use of such films as cellulose acetate, ethylcellulose, polyethylene, saran and Pliofilm, as well as thermoplastic-coated papers. It is possible for rolls of two different materials to be used. Aluminum foil, for example, may be used for the preformed side because of its extensible character, while the flat side may be of a transparent film that would afford visibility of content. It is even possible for a fly leaf or extra fold to be heat sealed along one edge, affording extra space for printed copy, directions or other information for the consumer.

While the machine's first commercial use is for packaging powder, the structure of the machine and the nature of the process make it possible to handle liquids



PREFORMED UNITS, ready to be filled with vitamin powder, are shown as the 26-in. web of material moves through the machine. The packets may be formed up to 6 by 26 in. and varying in depth of draw from $^{1}/_{16}$ in. to the maximum of $^{5}/_{8}$ in.

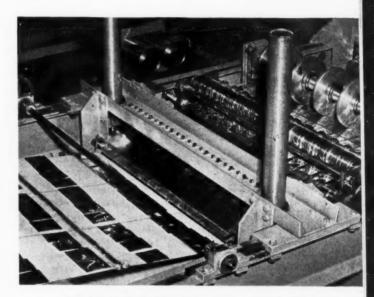


LOOKING INTO machine after web of material has passed under filler (right), individual cells are shown filled with powder. The top web is then introduced, to be heat sealed over the preformed pockets.

and tablets as well, according to the makers of the equipment.

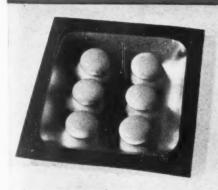
Like all machines which perform a variety of operations, this one is a composite of several units or stations. One supply roll is fed first into the preforming station, where the concave pockets are formed, and at the same time the product brand is embossed on the foil. Next, the material passes through the filling station, where packets, 12 abreast, are filled with accuracy. The top web is then introduced, to be heat sealed over the preformed pockets. At this point also a fly leaf is attached, if the structure calls for one. Next operation is registration by electric eye in preparation for slitting and cutting into single packets, after which the packets are delivered by conveyor to the operators who perform the final packaging operation of placing the individual packets into boxes.

CREDIT: Machine and contract packaging service, Mason-Keller Corp., Roseland, N. J.

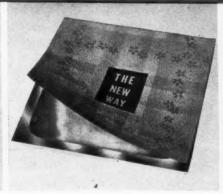


AFTER SEALING of top web, the individual packets are slit, cut off and dropped on conveyor belt for delivery to final packing operation.

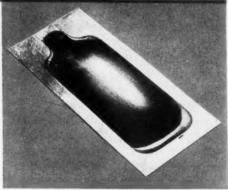
Variations of form for other products



TRANSPARENT TOP web of plastic film can give visibility of product. Pills can be automatically counted and filled into individual packets.



ATTACHMENT of fly leaf to packet during heat-sealing operation can provide additional space for instructions or promotional copy.



FOR LIQUIDS or ointments, the embossed area can be bottle shaped, to suggest how contents may be released through a top opening in the packet.

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NEW, BRIGHT DESIGNS are in striking contrast to the typical old package. Hexagonal trademark, barely distinguishable in photo of old package, provides continuing family relationship. Colors are used to distinguish four product lines: green for acid-core solders; red for rosin-core; yellow for specification solder; blue for soldering salts and pastes and solid wire solder. The new trademark design is equally adaptable to all package forms in the line—folding paperboard cartons metal cans, cores and boxes, as well as counter display cartons.

SOLDER,



ester Solder Co., Chicago, for 50 years the world's largest manufacturer of flux-core solder, has launched a complete package redesign program to step up product identification at the point of sale and pave the way for more aggressive merchandising. The activity includes the entire range of Kester re-sale items which are handled through jobbers and wholesalers for distribution to hardware stores, radio and automotive repair shops and other non-industrial outlets.

According to J. H. Humble, general sales manager, the program stemmed directly from field reaction to the company's former package treatment. Wholesalers and retailers alike felt that the earlier package design, incorporating an all-over diamond pattern in black against a solid green or red background, left much to be desired in product identification and sales punch. The Kester name and other label elements, printed in black, did not stand out clearly and the general appearance of the packages was rather lifeless and outmoded. In dimly lighted jobbers' stockrooms, the packages were often hard to locate.

To overcome these handicaps, Kester broke boldly with the earlier treatment, yet preserved package continuity by retaining the established colors and certain design features. Thus the distinctive hexagonal label panels were carried over—with modifications—to the new cartons. The over-all diamond pattern was also

white, with detailed use instructions printed in the background color.

On the new Kester packages, the company name has been registed as a trademark and is used with the small circled "R" in conformance with new trademark registration rules. The Underwriters' Laboratories seal, which was previously applied to the cartons in the form of a sticker, is now printed directly on the packages, saving the cost and labor of a separate labeling operation.

An interesting design feature of the new packages, carried over from the earlier cartons, is the employment of the top inner carton flaps for "sell" copy. On both the 1-lb. and 5-lb. sizes, the flaps carry a quick listing of the types of solder made by Kester and the new logotype, consisting of the words "Kester Solder" in reverse against a solid circular background. Mr. Humble points out that as the user opens the package, the carton flaps provide a final opportunity to put across a brief sales message.

The acid and rosin-core solders are also put up in small folding boxes under the designations of "Metal Mender" and "Radio" solder. These small packages, which carry out the basic color coding and design motif, utilize the bottom panel for use instructions. Considered essentially as introductory units for the larger sizes, these assortments are packed in groups of 10 in

TOO, MUST SELL

KESTER SOLDER CO. PROVIDES

A LESSON IN PACKAGE PERK-UP

TO PROMOTE MERCHANDISING A

STRICTLY UTILITARIAN PRODUCT

kept, but in the form of a gridwork of white lines against the solid background, affording a pleasing contrast and making the packages appear larger and lighter.

The use of the background red and green on the Kester packages denotes plastic-rosin-core and acid-core types, respectively. The distinction is important to the buyer, since each type is intended for definite soldering jobs—the rosin-core being particularly recommended for radio, electronic, television and electrical work, and the acid-core type suited for general work.

Whereas the former packages were devoid of white, the new design employs the white boxboard effectively for contrast with the colored backgrounds. In addition to forming the diamond gridwork used on most of the re-sale packages, white is also used as a border to set off the hexagonal label panels, as a wide band across the center of these panels, and for reverse lettering on the words "Kester" and "Solder." On the back panels of the popular 1- and 5-lb. cartons, the label panel is solid

folding counter display cartons having a die-cut riser which sets off the hexagonal display panel in bold relief.

Due to the weight of the solder, it has been found desirable to give the packed "coil carton" counter display units extra protection in the form of a simple sleeve applied before they are packed in the shipping carton. Here again, Kester has taken the opportunity to increase sales appeal by imprinting the sleeves to match the display carton.

Folding cartons for the Kester solid wire and specification types of solders, whose volume is relatively low compared to the two major lines, follow the same general design treatment, with blue as background color for the former variety and yellow for the specification solder.

From panel to panel, the design handling is the same, except that these packages also include, on one of the hexagonal panels, blank spaces in which data on type of alloy, flux, core (on specification solder) and

wire diameter may be rubber stamped when packed.

One of the larger containers in the new Kester line-up is the 5-lb. canister of Kester soldering salts, which is lithographed in bright blue and white and has the pryoff type of friction cover. The display panel and rear panel of this can maintain the family design theme by incorporating product identification and use instructions in hexagonal borders. Both this container and the small 2-oz. slip-cover cans for soldering paste re-

ceived recognition in the recent 22nd Annual Exhibition of Design and Printing in Chicago, staged by the Society of Typographic Arts.

CREDITS: Design and supply of 1-lb. and 5-lb. spool cartons, coil cartons, display cartons and protective sleeves, Ace Carton Corp., Chicago. Lithographed metal spools and 2-oz. soldering paste cans, J. L. Clark Mfg. Co., Rockford, Ill. Five-lb. can for soldering salts, Olive Can Co., Inc., Chicago. Design of soldering paste and soldering salts cans, J. W. Pawliger, Chicago.

Bananas get brand identification

By means of bands and labels, brand identification has come to bananas. United Fruit Co.'s famous "Chiquita Banana" has been visualized and the animated banana symbol has been registered and copyrighted as the company's trademark. This step, combined with a carefully supervised jobber packaging program, carries on the company's long-range plan of making bananas recognizable by brand.

John N. Kelley of the Fruit Dispatch Co., sub-



Table model sheeter-gluer for cellophane banding.



Chiquita trademark, colorfully printed on cellophane.

sidiary of the United Fruit Co., equipment department, says that in addition to identifying the fruit, the program assures better merchandising because:

- 1. Units are easily pre-priced for self service.
- Sales are speeded up.
- Store shrinkage is decreased because customer handling is reduced and customer selection of individual bananas eliminated.
- 4. The colorful bands or labels, neatly applied, improve the appearance of the fruit.

The branding may be through cellophane bands, gummed paper tape bands, gummed paper labels or decalcomania labels. The cellophane bands (300-PT) are 2 in. wide, printed in four colors, with a space for imprinting the jobber's name and adding price and weight. The gummed paper tape (60-lb. white kraft stock) is 1-in. wide and printed in three colors, with the Chiquita figure oval repeated every 3 in., leaving space for the other information. Both the decals and the gummed paper labels carry just the trademark printed in three colors—the decals having a red border and the labels a black border. According to the company, most of the jobbers are using the cellophane band.

The banding and labeling are done at qualified jobbers' warehouses, using specially recommended table model sheeter-gluers or moisteners. When the decals or gummed labels are used, three labels are usually applied to each banana "hand." Use of the trademark is restricted to the top quality grade. At present, jobbers' orders for packaging materials are being pooled by Fruit Dispatch in order to obtain quantity prices from printers.

CREDITS: Sheeter-gluer, Wrap-Ade Machine Co., Inc., Brooklyn. Paper-tape moistener, Nashua Package Sealing Co., Inc., Nashua, N. H. Adhesive for cellophane bands, National Adhesives, New York.

COMPARISON of old bag, formerly used for 18 varieties of Société candies, with new design which uses nine different color combinations and a variety "spot" on each bag to distinguish types of candy. Although the old design was good, it gave no distinction between varieties. Trademark also makes brand name more memorable.





Color boost for candy CHANGE FROM SINGLE STOCK

BAG TO A NINE-COLOR PROGRAM IDENTIFYING 19 VARIETIES BRINGS

AN ASTONISHING 1,800% SALES INCREASE

When the first-year results of a new packaging idea show sales increases of 1,800%, a volume 19 times the average of the previous five years, it's something to think about.

That's precisely what happened in the case of the Imperial Candy Co. of Seattle, when it adopted* a new nine-way packaging program to merchandise its line of "Société" candies. Sales are reported still increasing, a year after the change was instituted.

Prior to the adoption of the program, Imperial had been packaging each of its full-variety line of hard candies in a single style of bag. It was an attractive, two-color, brand-identified bag of conventional design. Nearly any present-day candy merchandiser would agree that the bag was perfectly adequate.

Feeling that an adequate packaging program is perhaps not good enough in today's tightening markets, Imperial's sales manager, H. E. Haggard, got together in the middle of 1947 with the Cleveland converter which had been supplying Imperial with its bags. Five months later, after working together over 15 separate design ideas, the two companies felt they had what was needed.

It was a line of nine bags completely identical in design, but excitingly different in color. Each of the color combinations bore a descriptive slug, like "Licorice Bits" or "Lemon Drops."

When the variety of packages is placed on a display rack, the run of warm colors, set into the singularity of design, created a remarkable effect.

Success of the idea was immediate, all the way around the merchandising cycle. Imperial is now packaging 18 varieties of hard candies under the nine bag categories and already is merchandising Chocolate Creams under the Mint category, a total of 19 varieties.

The company's new trademark for this line—a school girl in a Scotch plaid skirt and pigtails, standing next to the Société brand-was created for Imperial by the converter's art department with the assistance of the company's West Coast representative.

CREDIT: Bags designed and supplied by The Dobeckmun Co., Cleveland.

> **COMPLETE NEW LINE comprises 18 products in** 19 bags in nine different color combinations, although all follow new standard design. Color range gives candies rainbow effect in mass display.

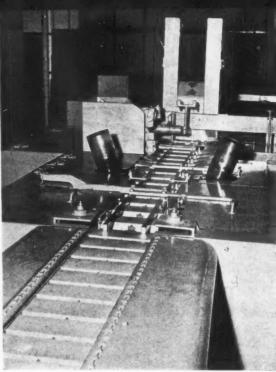


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^{*} See Modern Packaging, June, 1948, p. 131.



1. INFEED END of master cartoner, showing single row of Doan's unit cartons being split into two rows on infeed belts of accumulator machine, then elevated, six over six, and loaded into master cartons. Stencil mechanism is in center background.



2. DISCHARGE END, showing filled master cartons moving out toward camera on drying conveyor which seals the glued end flaps. The glue pots can be seen in the center of the photograph.

MASTER CARTONER

ACCUMULATOR PUTS CARTONS

WITHIN CARTONS, PROVIDING MECHANIZATION OF MULTIPLE WHOLESALE PACK

The practice of putting five, 10, 12 or 24 unit packages in a single master container is a growing trend in the drug and cosmetic industries, impelled by the demands of jobbers and wholesalers for greater convenience and efficiency in supplying the trade.

Larger orders are booked in multiple units corresponding to the master container. Where the master container must be broken for small orders, it is a distinct convenience to the jobber to retain the large carton as a shelf package, protecting remainders. The retailer who maintains a sizable reserve stock also appreciates the master carton, which protects unit packages from dust and damage. Inventory is simplified.

The master or shelf carton is a package the consumer never sees. It requires no sales appeal; it is usually just a simple chipboard folding carton with brand name, quantity, size and other essential information printed on one or more sides. But the loading and sealing of this master carton is often a time-consuming operation at the manufacturer's plant—almost as much a problem as the unit cartoning itself.

Until recently master cartoning was strictly a manual operation, requiring several hand packers to keep up with the output of each 120-per-minute unit cartoning line. Now this type of packaging has taken its logical forward step with the development of machines that automatically accumulate and master carton the unit cartons, cutting by as much as 60% the labor requirements for this operation.

Among the first to use these machines—and offering a good illustration of the principles involved—is the Foster-Milburn Co., Buffalo, N. Y.

One of Foster-Milburn's products is Doan's Pills, a time-honored proprietary medicine for kidney ailments, selling in the millions each year. Automatic unit filling and cartoning lines turn out packages at high speed. Master cartons holding 12 unit cartons have long been used for Doan's Pills and previously they were filled and sealed by hand labor, requiring from four to five workers per line. Now the same quantity—ten 12-unit master cartons per minute—is handled by a new fully automatic machine attended by two girls.

One attendant observes and regulates the flow of packages on conveyor belts from the unit-cartoning machine and also keeps the magazine filled with master-carton blanks. The second, at the take-off end, packs the master cartons in the larger shipping containers.

The only package change required was in the shape of the master carton, which has been made longer and narrower to accommodate two layers of unit cartons, six per layer, placed side by side horizontally.

The master cartoner is an interesting adaptation of the familiar unit cartoner, involving means of collecting the proper number of single cartons in two layers and propelling them simultaneously into the opened master cartoner, which is then closed and glued.

Since the individual cartons would be unstable if handled upright, it was necessary to develop a means of moving them horizontally. The problem was solved in a novel manner.

The individual cartons, glued on both ends, are discharged in a single line from the preceding machine through a belt conveyor. Six cartons at a time are taken from this conveyor and placed alternately on two infeed belts entering the accumulator machine (see Fig. 1). One of these infeed belts continues on the same level. The other one is inclined upward, rising slightly more than the width of an individual carton.

Six cartons are then automatically transferred from the right-hand belt to an elevator located midway between the belts. Six more cartons are transferred, at a higher level, from the left-hand belt. The elevator then rises approximately 2 in., bringing the two layers, six each, into loading position. The top layer, elevated between the infeed belts, can be seen in Fig. 1.

The folding master carton is fed from the magazine and a control number is automatically stenciled on the flap. The carton is then opened, the load is inserted, both ends of the carton are glued and the finished package is discharged on a deadplate, ready for packing into shipping containers, as shown in Figs. 2 and 3.

Machines of this type obviously have a wide field of usefulness wherever cartoned products must be accumulated and placed in still larger cartons before going into shipping containers. They will be particularly welcomed in the pharmaceutical, proprietary drug and cosmetic industries. Bottles, jars, tubes—in fact, almost any product which is first put into individual cartons—can be accumulated automatically, thus extending mechanization one step further down the production line.

Leviton Mfg. Co., Brooklyn, uses a machine of this new type to accumulate and load 10 individual cartons containing electrical switches and receptacles, into a master carton. A similar machine is being used by Merck & Co. at Rahway, N. J., to place five individual packages of penicillin in a master carton. Code letters and other data are automatically printed on the master carton.

The accumulator machine can be made adjustable to handle several sizes of master cartons. The master carton is a conventional tuck or glue-type carton, end loading. Master cartons measuring as much as 6 by 6 by 10 in. can be loaded at speeds up to 40 or 50 master cartons per minute.

If desired, the accumulator machine can incorporate automatic controls which will stop it if the supply of individual cartons is interrupted. It re-starts automatically when the supply becomes ample, keeping it in step with the production line as a whole.

On the machine in use at Merck & Co., the accumulator machine and the individual cartoner are still more closely interlocked. If the accumulator machine stops automatically because of an empty carton magazine or a defective carton, the individual cartoner is automatically stopped, thus preventing piling up of cartons between the two machines.

CREDIT: Accumulator cartoning machine, R. A. Jones & Co., Inc., Cincinnati, Ohio.

4. OVER-ALL VIEW of operation. Automatically filled and sealed 12-package cartons, discharged from machine at rate of 10 a minute, are quickly loaded into corrugated shipping cases by one of the two machine attendants. The previous manual operation required the work of five operators.

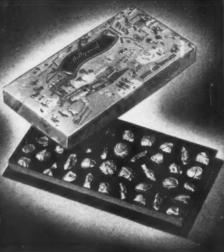


5. SHOWING ARRANGEMENT of 12 packages of pills within the master carton. All panels of the master carton are printed with Doan trademark.



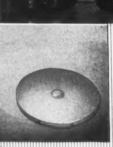






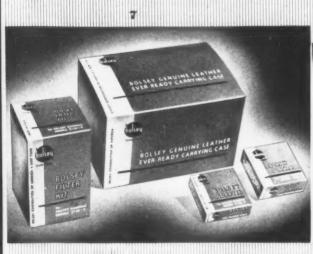








MODERN









Sprouting peony roots, complete with soil mixture are being packaged by the John Elzinga Bulb Nursery in window-topped, plastic-coated, spiral-wound paper containers. To indicate the color of blossom which the root will produce, full-color pictures of the blooms are printed on the container. The Pliofilm window in the top shows the growing sprout—an important selling feature. Containers, Sealright Co., Inc., Fulton, N. Y., using Goodyear Pliofilm.

Instant brand identification is assured by this sackwrap now being introduced on the famous Dry Sack Sherry distributed by Julius Wile Sons & Co., Inc. Hand made in Spain, the close-fitting cloth sack with the name stencilled in red ink ties at the top with a drawstring threaded through a tag label. To prevent the bottle from tipping, the sack has a flat round bottom piece sewn in separately.

Scenes from the movie, "The Harvey Girls," form the basis for the design on the paper-covered boxes for the new line of chocolates introduced by the Fred Harvey System. Design for the first four candy assortments varies only in the labeling. Design, Edgar Miller, Chicago. Boxes, Universal-Engel Paper Box Co., St. Louis, Mo. Cover paper, Matthias Paper Corp., Philadelphia.

Rex Research Corp. offers its new scented deodorizers in aerosol-type metal cans with tinted mother-ofpearl paper labels printed in four-color floral designs suggestive of the names of the three scents. The lightweight, concave-topped can with dispensing valve in the center has a protective metal lid. Cans, Continental Can Co., New York. Labels printed by Roberts Printing Co., Toledo, using Riegel Paper Corp. "Crystalon."

design emphasize content copy. Design, Advertising Aids, New York. Cartons, Burton Packaging Co., New York.

These exceptionally realistic carton illustrations in color of the "lawn you'd like to have" make it easy to sell eleven kinds of grass seed packaged by O. M. Scott & Sons Co. for Montgomery Ward & Co. in siftproof folding cartons. Naturalness of the illustration is the result of color photography and fine line drawings. Cartons, Robert Gair Co., Inc., New York.

Chip Teez—thin slices of plantain bananas fried in deep fat for eating as party snacks—keep crisp and fresh in duplex style, printed, moistureproof cellophane bags used by Chip Teez International, Inc. The package decoration of bananas and jungle leaves carries out the product's tropical theme. Bags, Shellmar Products Corp., Mt. Vernon, Ohio.

Counter charm of the cookies in Carr-Consolidated Biscuit Co.'s de luxe assortment package is increased with this new visibility-plus carton with transparent cellophane overwrap. The sampler design on the carton is printed in red and white. Tray is slightly smaller than the previous one and stacks well on shelves. Packages, Milprint, Inc., Milwaukee, Wis.

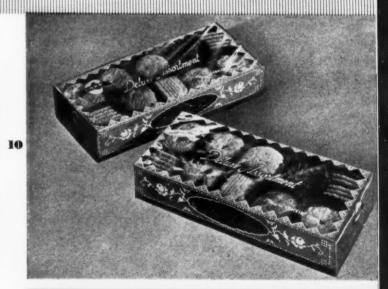
A transparent case molded of cellulose acetate provides a protective, promotion-wise package for Columbia Protektosite Co.'s sunglasses. In addition to creating an eye-appealing display package, the case has permanent re-use value as a pocket carrying case. The cases have a special patented hinge construction. Cellulose acetate, "Lumarith," Celanese Corp. of America, New York.

PACKAGING PAGEANT

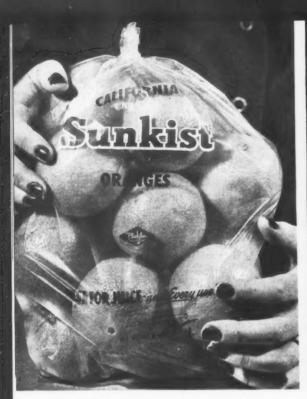
Applied color labels, crown caps and band seals are features of the new $6^2/_{\delta}$ oz. "splits" used by Chateau Gay, Ltd., for its effervescent wines. Designed primarily for bar and cocktail lounge use, the ACL process has the advantage of permanency when the bottles are iced. The crown cap, with sealing band, is convenient for bartenders. Bottle, Owens-Illinois Glass Co., Toledo. Cap, Armstrong Cork Co., Lancaster, Pa. Closure, Du Pont Cel-O-Seal.

Stock candy boxes in the form of small Cape Cod cottages are party packages for Bailey Candy Co. and several other confectioners. The miniature cottage is paperboard laminated with printed aluminum foil. Company name is printed on the bottom. Die-cut dormer window is actually a locking tab to hold the roof flap. Box, Royal Art Craft, Boston.

The Bolsey Corp. of America has paid particular attention to color in redesigning its entire line of camera and camera accessories packages into one eyeappealing family. Bright Egyptian red was the background color selected as an aid to quick product identification. Dark underlining of the copy and the off-center







SUNKIST BAG supplied to Big Bear Markets, Detroit, was simply printed with Sunkist and Pliofilm trademarks and smalltype suggestion: "Note: This Pliofilm bag is suitable for use in your refrigerator."



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TYPICAL DISPLAY of Pliofilm-bagged, bulk and mesh-bagged oranges in a Detroit store. Care was taken during the comparison tests to give equal prominence to all three types. Customers showed better than a four to one preference for the transparent bag over the mesh bag. Packaged oranges, despite a 10% premium in price, claimed 43% of the sales.

POUNDS IN FILM

IS THE TRANSPARENT BAG AN EFFECTIVE PRE-PACKAGE FOR HEAVY PRODUCE

AND WHAT EFFECT WILL IT HAVE ON SALES? A COMPREHENSIVE SURVEY

PROVIDES SOME ANSWERS. By A. M. Tierney* and J. P. Collver†

The effectiveness of transparent film in merchandising small pre-packaged units of such produce items as spinach, beans, cauliflower, etc., has been well established. Would it be equally effective in merchandising the heavy, "hardware" items of the produce department-oranges, apples and potatoes-which customarily are bagged in units no smaller than 5 lbs.? Would a transparent bag have the necessary physical strength and the proper respiratory qualities for these items? Many producers, shippers, wholesalers and retailers are asking themselves these questions.

Knowing that Pliofilm (rubber hydrochloride film) is a satisfactorily strong transparent film1 and that its protective qualities have been found helpful in prolonging the life of citrus fruits and other produce items,2 the Goodyear organization set out last December to find answers to the questions of (1) consumer preference and (2) practicability of handling through regular commercial channels, using 5-lb. bags of oranges as the principal test item.

Independent market research organizations were retained to supervise intensive test programs in Detroit and Chicago, to sample consumer opinion and to compile statistics. Additional experience was obtained from the Colonial Stores of Atlanta, Ga., which has used over 1,000,000 Pliofilm bags for oranges, apples and potatoes in the last year, from the Washington State Apple Commission at the shipper level and from De-

^{*} Pliofilm Sales Department, Genera Products Division, Goodyear Tire & abber Co., Akron, Ohio

Rubber Co., Akron, Ohio † Sales Research Department, Goodyear Tire & Rubber Co., Akron, Ohio, † The 1949 Modern Packaging Encyclopedia gives the tensile strength of Pliofilm as 2,800 to 4,000 lbs. per sq. in. and elongation as 10 to 20^{C_c} .

² Bulletin 369, University of Florida, Agricultural Experiment Station, Gainesville, Fla.

partment of Agriculture observers who participated in these tests.

The Detroit and Chicago orange tests were run over a period of three weeks each, to get the reaction from repeat buyers and eliminate the "novelty" factor. Each of the tests involved a quantity of no less than 4,000 dozen oranges. A total of 24 supermarkets in the two cities were carefully chosen to give a good cross-section of purchasing levels. In each store the packaged and bulk oranges were displayed impartially, side by side and with equal prominence.

Detroit test

The Detroit test, covering 15 stores of The Big Bear Markets, involved a three-way comparison between bulk oranges, selling at 49 cents a dozen, and 5-lb. bags of mesh and of Pliofilm, each containing from 15 to 16 oranges, priced at 69 cents per bag. On a dozen basis, the packaged oranges were about 5 cents, or 10%, higher.

The results, as reported by the White Research Agency, were as follows:

	Price per doz.	% of sales
Oranges in bulk	49¢	57%
5-lb. Pliofilm bag	54¢	35%
5-lb mesh bag	54¢	8%

Thus these customers showed better than a four-toone preference for the transparent bag as a package over the more conventional mesh bag and, despite the 10% premium in price, 43% preferred their oranges pre-packaged.

In some of the Big Bear stores the choice was only between Pliofilm-bagged and bulk oranges, the mesh bags being eliminated. In this case—with the same price differential as above—the transparent bags still claimed 35% of total sales.

Chicago test

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In nine Chicago stores of the Kroger Co., where results were tabulated by the Statistical Tabulation Co., two types of comparison tests were made: Plio-film-bagged vs. bulk oranges and Pliofilm-bagged vs. mesh-bagged. In the Chicago test, due largely to labor-saving bagging at a central pre-packaging plant rather than by hand in the retail store itself (as was the case in the Detroit stores), no price penalty was charged for the packaged oranges. Also taken into consideration in this pricing policy is the fact that retail selling costs are far lower for packages, since it is unnecessary to have a large force on hand during rush periods to weigh and bag the bulk fruit.

It is not surprising, therefore, that where Pliofilm-bagged oranges were pitted against bulk oranges at the same price level in the Chicago stores, they outsold the bulk by 56% to 44%.

In those Chicago stores where the choice was between Pliofilm-bagged and mesh-bagged, at the same price

and weight, a clear preference was again demonstrated for transparent film as a package, the score being 61% of volume in the Pliofilm bags and 39% of volume in mesh bags.

Customers' reactions

In both Detroit and Chicago, impartial interviewers representing the research agencies met customers after they had made their purchase of oranges and were walking toward the check-out counters. A total of 470 persons who bought Pliofilm-bagged oranges gave their reasons for making this purchase.

In the following table, the reasons which were given by the customers who bought at displays showing both Pliofilm bags and bulk oranges are shown in the order of number of mentions.

Reasons for buying Pliofilm bags over bulk

Easier to handle; more convenient	51%
Looks attractive; appealing to the eye	14%
Can see quality of oranges in bag	13%
Can use bag for other purposes	10%
Oranges will not dry out	8%
Oranges look fresher	8%
More oranges for the money	7%
Wanted to try out new type of bag	7%
More sanitary	5%
Read display sign	5%
Had bought before and like bag	4%

Since the tabulations showed that 81% of the bag purchasers in the two cities combined had chosen the Pliofilm over the mesh bag, these purchasers were

> CENTRALIZED BAGGING of oranges at Glen Dora Citrus Products Co., Chicago, supplying Kroger stores in test. Two-head check-weight bagging machine of latest type turns out 400 5-lb. bags per hour. Pliofilm bag was same as shown on opposite page, except that it was heat sealed.





DISPLAY TESTING customer preference for bulk oranges at 49 cents a dozen or 5 lbs. (15 or 16 oranges) in a Pliofilm bag at 69 cents. Despite price difference, 35% was sold in bags.

asked to give their reasons for this preference for transparent film versus the mesh bag. Reasons most frequently cited were:

Reasons for choice of Pliofilm over mesh bags

rugo
25%
18%
16%
14%
14%
11%
7%
7%
5%

It is interesting to note in the above tabulation compared with the preceding table where the question was merely between bulk on the one hand and bags in general on the other-that the "easier to handle and more convenient" comment drops from the first and dominant reason down to sixth place. Only 11% saw any difference between the film and the mesh bag on the score of convenience. The five leading reasons for choice of the transparent film package show major concern with the items of complete visibility, maintenance of quality and sanitation. This preference for a sealed package which still permits visibility of the product certainly is significant evidence that today's food shopper is well aware of the value of proper packaging and capable of interpreting quite intelligently the features provided.

Finally, the interviewers polled those customers who had chosen to buy their oranges in bulk. Two hundred of these customers gave the following reasons for preferring bulk:

Prefers to pick out each orange	31%
Had previous bad experience with package	ed
produce—always some bad	25%
Questions quality of bagged oranges—son	ne
may be soft or not ripe	15%
Price by the dozen is less	9%
Wants to pick out thin-skinned oranges	4%
Did not notice Pliofilm bag	4%
Bulk oranges looked larger	3%
Never buys fruit in bags	3%
Habit—always buys by the dozen	3%
Wants to pick out ripest oranges	2%
Wanted more than 5 lbs. of oranges	2%

It will be noted that approximately two-thirds of those who shunned the packaged fruit did so because of doubt that the quality was consistently good. Here again is proof that pre-packaging will succeed only if quality is religiously maintained.

Indications are that 5 lbs. is a sufficiently large quantity for a packaged unit of oranges. Only 2% said they purchased bulk because they wanted more than 5 lbs.

Mechanics of packaging

The Detroit and Chicago tests presented contrasts not only in pricing and selling methods, but also in the mechanics of packaging. These differing situations were deliberately selected for comparison purposes.

The Big Bear Markets of Detroit are so situated that it was necessary to carry on the pre-packaging operation by hand within the individual store. Pliofilm bags (printed in blue with the Sunkist brand, supplied through the cooperation of the California Fruit Growers Exchange) were distributed to the stores from the chain's headquarters, 200 bags per shipment. The produce clerks on the floor would take the oranges from the counters, place them in bags in approximately the number required for 5 lbs., fill a shopping cart with the unsealed bags and then wheel the carts to a scale in the produce department for weighing. The bag would be held at the top and twisted, and a small piece of cellulose adhesive tape wrapped around the neck of the twist to hold it. Mesh bags were filled in the same manner. The check-out counters were posted on the price of the bagged oranges, so that none of the bags had to be price marked.

In Chicago, bagging was done under contract by the Glen Dora Citrus Products Co. for the Kroger stores and the latest type of machinery was used for maximum efficiency. The machine was a new one specially developed by the Food Machinery & Chemical Corp. for the filling and weighing of this bulk type of produce into bags of all types and it was found that it could be adapted to use with Pliofilm bags with no difficulty.

In the Chicago operation, one man opens the crates of oranges and dumps the fruit onto an inspection table leading to the conveyor belts. These belts carry the oranges past the outlets into the two-headed bagging machine, allowing them to drop into a pan held at

three points connected to a 200-lb., no-spring scale. The scale is set to the desired level, allowing a tolerance of 1 to 2 oz. overweight; when this 5-lb. weight has accumulated in the pan, the gate to the feed belt automatically closes. Visual check of the scale reading is made by the operator, who holds an open bag at the discharge chute and, if the weight checks, he trips a foot pedal, opening shutters which allow the load of oranges to fall through into the bag. The operator then places the filled bag on a take-away conveyor, which carries it to a conventional rotary heat sealer for sealing of the top. The whole operation is keyed to the speed of the check-weight bagging equipment, which is approximately 400 bags per hour per filling head. With the two-head machine, the Glen Dora company is handling heavy-weight produce in this manner at a rate of approximately 20 cars per month.

It is significant to note that in Chicago, with no price premium, bagged oranges were preferred over the bulk 56 to 44, while in the Detroit stores the added cost dropped packaged sales to between 35 and 43% of sales. The value of a mechanized operation is thus indicated.

Washington apple test

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Since mechanized packaging can, in many cases, best be done at the shipping point, the concurrent Pliofilm bagging and test shipping of Winesap apples from Washington State provides further interesting data on the practicability of this type of transparent film, where physical strength must be sufficient to withstand long-distance shipping shocks.

Carloads of apples so packaged have been shipped, under observation by the Washington State Apple Commission and the U. S. Department of Agriculture, to 29 different cities ranging as far as New York City and Dallas, Tex. The package used is the Denton Pliofilm bag, having a heavy fibreboard collar at the top which, with finger holes, serves as both closure and carrying handle.

Surveys of consumer reaction to this apple package have been completed in Chicago, Cedar Rapids and Minneapolis. A final report has not yet been released by the Research and Marketing Branch of the U. S. Department of Agriculture, but overwhelming acceptance has been shown by retail organizations and consumers nation-wide. This report by U.S.D.A. will be published in the late summer. Since the initial shipments in December, 60 shipments have been made from Washington to Eastern markets, with one large chain in Chicago having ordered 11 additional carloads.

In answer to "What do you like most about this package?" quality of fruit was listed by 45% of the respondents, "buying convenience" was mentioned by 30%, "visibility" by 29% and "cleanliness" by 27%.

Physical performance

All of the data accumulated so far indicate that the strength of the Pliofilm bag is adequate for the job, although previously most packers had doubted that



APPLE PACKAGE of Pliofilm with fibreboard handle tests practicability of film in nation-wide shipments from packaging point in Yakima, Wash. Consumer preference and negligible breakage were established in tests in three cities. Winesaps in 5-lb. bags sell here for 73 cents.

any transparent film could hold the heavy items—particularly if they were to be machine bagged and/or shipped after bagging. Also, reports by customers and store managers indicate that the perishable oranges and apples have been well preserved by the film.

In the Big Bear stores, each produce manager was furnished with a daily orange sales report form which was filled in and mailed to headquarters, showing not only daily sales volume of packaged and bulk volume, but also the condition of the bags and oranges.

Out of more than 5,000 bags handled in the Big Bear stores during the test, only 5% were reported broken and this was blamed by the managers on improper filling. Out of 1,669 Pliofilm bags of oranges specifically inspected for mold, 2% were found to have one or more moldy oranges and no nests of mold were found.

Approximately similar results were obtained in Chicago, where the filling was done by machine.

Obviously, store operators would not be interested in the 5-lb. Pliofilm bag for any length of time if breakage or mold conditions were in any way excessive. Perhaps the most convincing evidence along this line, therefore, is the enthusiasm which Colonial Stores of Atlanta have for the package after more than a year's experience.

Checkers report that Colonial Stores have used 1,075,000 Pliofilm bags in 113 large supermarkets and 60 smaller markets in Georgia and South Carolina for the merchandising of oranges, apples and potatoes in 5-lb. units. All bagging was done at the retail level and the cost of the package was passed on to the consumer. T. W. Howell, Colonial's produce manager, reports a minimum increase (Continued on page 278)



Paper coffee pouch

SUPER-TREATED, COATED KRAFT MAKES PLIABLE WEB STRONG

ENOUGH TO HANDLE ON HIGH-SPEED HEAT-SEALING MACHINES

COLONIAL COFFEE package made of special kraft-type, coated paper is easy to open, convenient to use, has good protective qualities for the product and is attractive in appearance.

For many years there has been need for a packaging paper with sufficient strength, pliability, protection and heat-sealing qualities for use on the type of automatic packaging equipment which forms, fills and seals a pouch-type package. A sheet of ordinary kraft, while strong and tough, does not have the necessary flexibility and pliability, and does not lend itself to coating which would make it heat sealable and impart good water-vaporproofness.

Papers which do lend themselves to coating and thus gain protective qualities usually lack the necessary strength, not only for handling on automatic pouchmaking equipment, but for later handling throughout distribution.

Some transparent films are suitable for such equipment, but these webs are usually comparatively expen-

sive, especially after printing, and often become brittle after a period of time.

It is news, therefore, that there has now been developed a heat-sealing paper designed for use on varied types of automatic pouch-making equipment.

First application of the new paper has been as a hotel- and restaurant-sized package for finely ground coffee—the pouch holding sufficient coffee to make eight or 12 cups in a glass coffeemaker.

The Colonial Coffee Co., New York, is one of nine coffee roasters who so far have adapted the paper for an institutional package, using it on a conventional high-speed, pouch-forming, filling and sealing machine. Slight modification of the machine was necessary when the change to this type of paper web was made, it is reported.

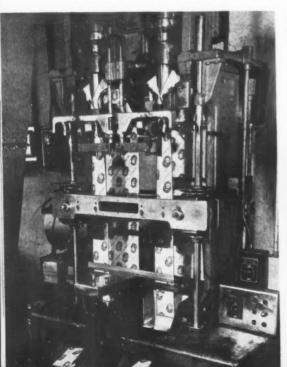
W. B. Gans, president of the company, sums up its advantages thus:

1. Economy. Cost of the paper, printed in two colors, is the same as that of unprinted cellophane.

2. Product protection. Airtight and moistureproof qualities permit the retention of the free oils in the fine grind along with the aroma.

3. Suitability for low-cost production. Continued pliability of paper throughout distribution means no loss from broken bags.

4. Attractive appearance. Bright opaque white



AUTOMATIC pouch-forming, filling and heatscaling machine handles web of this special paper efficiently with only slight modifications.

> SIX OTHER BRANDS among those using new paper stock similarly to Colonial, on same type of machine. Brand identification is a strong point; material printed in two colors costs no more than unprinted cellophane, it is claimed.



slock lends itself well to color printing of brand, company name, etc., providing continued product identity heretofore missing in this type of package.

5. Convenience in use. Pouch is easy to open, since the paper tears in any direction—an important consideration from a coffee roaster's point of view.

Because the paper web must be strong and pliable for use on the automatic pouch-making equipment, the stock is essentially a super-calendered, bleached kraft, processed on a glassine paper machine and impregnated with certain plasticizing agents. The surface is treated in much the same manner as glassine to make it suitable for application of the heat-sealing coating. This coating is a lacquer film of the nitrocellulose type which provides the necessary moisture protection in

addition to the heat-seal quality. The pouch paper stock can be coated with many other types of protective lacquers and synthetic resins, depending on the qualities required in the finished package. It can also be laminated to itself to produce a web with very low water-vapor-transmission properties.

The new pouch paper, it is reported, is also being used for sugar, salt, spices, hot chocolate powder, dry yeast, pharmaceutical products, candy, soap powders and soft drink powders, all of which can be packaged at low cost on conventional automatic pouch- or bag-making machinery.

CREDITS: Coated paper pouch stock developed and produced by Riegel Paper Corp., New York. Pouch-making machine, Stokes & Smith Co., Philadelphia.

Greaseproof parchment bag for pie mix

Cartons with inner bags are favored by practically all manufacturers of the popular dessert mixes. But it is basically the inner bag that must provide the essential protection for the mixes which, because of the nature of their ingredients, present many problems. Many types of material have been used for these inner bags, depending upon the degree of greaseproofness, water-vaporproofness, etc., required.

Recently 6-O'Clock Foods, Inc., Norristown, Pa., adopted vegetable parchment as the material best suited for over-all protection of the extensive line of mixes which they produce. One of the company's latest products is a lemon pie filling mix and crust mix combination packaged under the 7-Minit brand name which is illustrated here. Filling mix is packed in one vegetable parchment bag, the crust mix in another. The ingredients of the mixes include such "unstable" items as baking powder, shortening, non-fat milk solids, dried egg and lemon oil.

Previously, when non-greaseproof paper bags were used, the company experienced difficulty with the bag becoming brittle along the folds as oil and grease were absorbed. In some instances the grease even penetrated the outer carton, marring the attractive appearance of the shelf package. The special vegetable parchment, having a high degree of plasticity, remains strong at the folds of the gusseted bag, thereby giving added protection from shock. Added protection for the dried egg, flour and milk solids ingredients of the pie mix is assured by these vegetable parchment bags.

The bags are given a special coating of thermoplastic adhesive across the top by the supplier so that they can be sealed on the same equipment used for the old bags.

Mixes are packaged in family design cartons, printed in two colors, with the identifying 7-Minit numeral and product illustration placed across the face horizontally.

Both side and end panels of the carton are devoted to related selling copy for the company's other products, while the back panel contains directions for preparing the mixes.

CREDITS: Parchment bags, Paterson Parchment Paper Co., Bristol, Pa. Cartons, Robert Gair Co., Inc., New York, and Downingtown Paper Box Co., Downingtown, Pa.

VEGETABLE PARCHMENT protects the ingredients for 7-Minit lemon pie filling mix and crust mix.



Vacuumizing heat sealer

SIMPLE, TABLE-TOP MACHINE DEMONSTRATES ITS POSSIBILITIES BY

WITHDRAWING AIR AND GAS FROM PLIOFILM-BAGGED SAUERKRAUT

NACUUMIZED

SAUERKRAUT PACKS are shown sealed with and without vacuumizing. Note that in vacuumized bag the Pliofilm closely hugs the product, making a firm pack and keeping brine mixed with kraut. In non-vacuumized bag, brine floats to top, and trouble was encountered with bags bursting from gas caused by product reacting with entrapped air.

A trouble spot encountered by many food processors using transparent films for flexible packages is in the entrapment of air inside the bag or pouch after sealing, causing product deterioration. Lack of an inexpensive method of vacuumizing a flexible package has thus, until recently, prevented processors of such foods as meat, cheese, pickles and coffee from taking full advantage of the special qualities of plastic films now available.

Within the last month a small, inexpensive, semiautomatic heat sealer that has a vacuum system incorporated as an integral part has had its initial commercial use. At the A. C. Kissling plant in Philadelphia, where the new machine has been used to vacuum seal Pliofilm bags containing sauerkraut, its performance "has been very satisfactory in withdrawing the air from the package," according to Mr. Kissling.

As a sausage and meat packer, Mr. Kissling started selling home-style, cask-cured sauerkraut in bulk in 1932, more or less as a side line. Because of its delicious flavor when made this old-fashioned way, the



PACKING TABLE at Kissling plant. Bags are filled and weighed by hand, then go through the machine in foreground, 30 a minute, for vacuumizing and heat sealing. Semi-automatic machine is controlled by foot treadle. Previously, sauerkraut was a product not suitable for self-service merchandising in supermarkets; in the new vacuum package it has a shelf life of 10 days to two weeks and is a big self-service selling item.

product sold exceptionally well in meat markets. When chain groceries, however, changed to self-service operations, they wouldn't handle the bulk because of the trouble necessary to pack it in small amounts. Last spring Mr. Kissling started packaging the sauer-kraut in a heat-sealable, laminated Pliofilm pouch in order to achieve greater distribution in the self-service supermarkets.

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The problem that led Mr. Kissling to seek the help of the equipment supplier was that occasionally a pouch would burst due to an accumulation of gas, naturally formed by the sauerkraut, inside it. What he needed was some way of withdrawing the air and excess gas before sealing the bag. Once the air was removed, the gas would not form. Although designed primarily for vacuumizing and sealing dry products in flexible packages, the machine was installed at the Kissling plant to see whether it could successfully vacuumize the sauerkraut pouch. Test packages made up with the machine and kept 10 days to two weeks-the estimated maximum "shelf life"-showed no signs of gas, so the machine was installed on the regular packaging table. After continued use on about 150 dozen packages, the only difficulty found in operation was that a small amount of brine was pulled out of the bag along with the air. This problem is being solved by minor adjustments in the vacuum draw and the addition of a sump pump and filter at the intake of the vacuum chamber. To date no complaints have reached Mr. Kissling from his dealers of a vacuumized package bursting, he reports.

The vacuum sealer, a comparatively small and simple machine, is mounted at the end of the packing table, occupying an area of approximately 18 by 24 in.

MACHINE CLOSE-UP. Heat-sealing jaws, in foreground, are open to show metal positioning guides with center opening where the vacuum nozzle is retracted. Rear, cushioned jaws which close the bag temporarily while vacuum is drawn cannot be seen here. Heat-sealing jaws are covered with silicone rubber. The air which is evacuated can be replaced with gas, if so desired.



Operated semi-automatically, the machine can vacuumize and seal 30 bags a minute. All the operator has to do is insert the bag in its proper position and trip a foot pedal.

The machine looks somewhat similar to a conventional bar heat-sealing machine, except for the vacuum pump and gauges, and except that the jaws open wider than they do on other machines. This is because (1) certain plastic films which give excellent results in holding a vacuum over long periods are adversely effected when coming into close proximity with heated surfaces during the preliminary vacuum drawing and (2) the arrangement makes it much easier for the operator to keep an eye on the operation.

There are two sets of jaws placed parallel to each other, with the heat-sealing set in front, nearest the operator. Back of the heat-sealing jaws, which are covered with silicone rubber to prevent sticking, are the clamping jaws that hold the mouth of the bag during the vacuum pull. The clamping jaws are covered with sponge rubber for cushioning. When a bag, previously filled with the product, is inserted into the sealer, rubber-tipped fingers hold the mouth of the bag open long enough for a T-shaped vacuum nozzle to enter; then the clamping jaws close over the bag opening and nozzle and the vacuum pump goes into action. When the vacuum pull is completed, the heat-sealing jaws contact and the seal is made, forward of the end of the vacuum nozzle.

Timing of these three operations is synchronized through solenoids. The sauerkraut pouches are given 7 to 8 in. of vacuum pull and the heat-sealing temperature for the laminated Pliofilm is set for 275 deg.

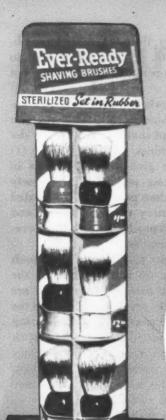
The vacuumized package is firm, with the sauerkraut compactly bunched in the bottom and the film closely conforming. The brine is distributed evenly through the kraut instead of floating loosely at the bag top.

Customer reaction to the flexible packaged kraut, whether vacuumized or non-vacuumized, has been enthusiastic, Mr. Kissling reports. When the Pliofilm bags were first introduced, sales averaged 350 dozenbag cases a week. Now the average is up to 700 cases weekly. The company is testing combinations such as sauerkraut and weiners and sauerkraut and sausages in vacuumized packages, as well as pickles-in-brine and mackerel, with good results, it is said.

While the Kissling operation is comparatively small and the pilot run prior to removal of the machine for alterations to meet the brine-intake problem was not as extensive as might be desired, indications are that this inexpensive vacuumizing machine does an effective job for a hand operation. Arrangements are now being made to extend its use into other food fields.

According to its manufacturer, the machine can be equipped to withdraw air and replace it with any desired gas, for those products which benefit by gas packing.

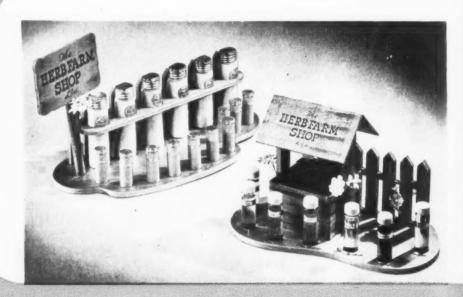
CREDITS: Vacuum sealer, Seal-Vac Corp., Philadelphia. Bags, Shellmar Products Corp., Mt. Vernon, Ohio, using Goodyear Pliofilm.



et Ready shaving b

A barber pole of printed acetate displays Ever-Ready shaving brushes made by American Safety Razor Corp. Holding 12 brushes, its small size—6½ by 7 in.—makes it a natural for cigar or toiletries counters. Dealer gets individual brush boxes with each display. Display, Davidson-Hansen, Inc., New York. Finishing, I. Fenster & Sons, Brooklyn. Acetate, Monsanto Chemical Co.

Laminated paperboard is the material from which these attractive powder, lipstick and perfume testers used by The Herb Farm Shop, New York, are made. The miniature rustic well contains lipstick removal tissues for the shopper's convenience. Products are attached to the base of the units so that they cannot be removed. The testers are color sprayed and silk-screen printed. Displays, Chaspee Mfg. Co., Greenwich, Conn.



DISPLAY



So popular is this Cutex emery board counter display carton that it has been made a permanent addition to the Cutex line, according to Northam Warren Corp., manufacturer of the Cutex preparations. Straightforward, informative copy, uncluttered design and ready brand identification are adroitly combined. Packaging arrangement of two different-sized individual cartons gives compactness. The display carton holds an assortment of 3 doz. small packages and 1 doz. large-sized ones.



A carefully selected assortment of the small replacement parts most commonly called for by users of Cory coffee brewers has been packaged in a self-dispensing counter display carton for Cory Corp. Designed to give the dealer a basic tailored stock on one order, the new merchandising kit also enables salesmen to sell the replacement parts in a single package deal. Parts are firmly held in the die-cut platform. Carton, Edison Folding Box Co., Chicago.

To mphasize the importance of maintaining adequate supplies of spare electric-light bulbs in the home, Westinghouse has introduced this eight-color lithographed paperboard "cupboard" which the dealer can fill with lamps. The display, set up to give a three-dimensional effect, stands 2 ft. high, 16 in. wide and 5 in. deep, with two shelves that hold varying quantities of lamps according to the sizes dealers wish to stock. It is shipped flat and locked into dimensional position by the dealer. Display, Einson-Freeman Co., Long Island City, N. Y.

Armour & Co., who introduced their Dial deodorant bar soap late in 1948, are distributing it in this 12-cake display carton. Clock and name logotype are repeated from the package to give remembrance value. To give a contrast from the deep salmon shade of the wrapper, the display is a blue-green. Design, Robert Sidney Dickens & Associates, Chicago. Cartons, Cooper Carton Corp., Chicago, and National Paper Box Mfg. Co., Philadelphia.





GALLERY



For appeal to both sexes, Carlson & Sullivan, Monrovia, Calif., packages its steel rules in different display cartons. Princess carton (for women) is silver, pink and brown. Red, blue and black Buddy carton is for men. Cartons, Standard Paper Box Corp., Los Angeles. Cases molded by Mode n 'lastics Co., Los Angeles, of Dow's ethyl cellulose.

Back-bar display for The Old Reading Brewery's P.R. Junior bottle is a sconce made of wood with a traditional Pennsylvania Dutch bird and tulip decoration silk screened on the face. The hollowed-out, curved shelf holds a full 8-oz. junior bottle. Display, Kay, Inc., New York.



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Contest winners

FOLDING PAPER BOX ASSN. JUDGES 328 ENTRIES, HIGHEST NUMBER

EVER SUBMITTED; 18 AWARDS GIVEN IN "5 AND 10" COMPETITION

Record-breaking entries were reported in this year's annual packaging competition of the Folding Paper Box Assn., as well as the "5 and 10" packaging contest sponsored by *Variety Merchandiser*, business magazine of the variety store field.

With 328 entries—more than 50% above the highest number submitted in previous years—the fourth postwar box competition sponsored by the Folding Paper Bos Assn. of America was judged at the association's 1949 meeting at the Drake Hotel, Chicago.

Forty-eight boxmaking concerns located in all sections of the country were represented in the competition. An important factor in the expanded entry list was the fact that this year, for the first time, boxes were separated into classes based on the end use of the product packaged. Thus, food cartons were judged against other food cartons, drug boxes against other drug boxes and so on, providing a sound basis for judging and creating increased interest.

As in previous competitions, the grand award winner was not chosen by the judges, but was determined by a vote of members attending the annual meeting.

The 1949 grand prize winner is a colorful family of

Rayve

RAYVE PRODUCTS won first place in the cosmetic divisions of both Folding Paper Box Assn. and the Variety Merchandiser competitions.

folding boxes for Swift & Co.'s new line of frozen fancy meat items, produced by American Coating Mills, Division of Owens-Illinois Glass Co., Chicago. The winning Swift packages—not previously selected by the four-judge panel as winner of the food products classification—are paraffined cartons lithographed by six-color process on solid manila folding boxboard. The cartons feature full-color illustrations of the fancy meat items as they appear when ready to serve. Product illustrations are taken from Carbro prints, providing a high degree of control over color tone values.

Entries in the competition were judged on the basis of the functions of the folding paper box, namely, protection of product, brand identification, convenience, sanitation, economy and sales value. While construction and type of product were considered, particular emphasis was placed upon merchandising appeal.

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The panel of judges consisted of Edward F. Dival, director of packaging, Corn Products Refining Co., Chicago; Walter Stern, packaging director, Barnes & Reinecke, Inc., Chicago; Miss A. R. Hahn, managing editor, Sales Management, New York, and Harlow Roberts, vice president, Goodkind, Joice & Morgan, Inc., Chicago.

Following is a summary of the winning packages and those receiving honorable mention in the respective product categories. In each instance, the name of the user is given first, followed by that of the box manufacturer supplying the package:

MEDICINAL PRODUCTS. First award, Modess Sanitary Belts (Personal Products Corp., Lord Baltimore Press). Honorable mention: Penicillin Inhaler (Upjohn Co., Sutherland Paper Co.); Koromex Jelly and Cream (Holland-Rantos Co., Richardson Taylor-Globe); Lip Salve (Sharp & Dohme, Edwin J. Schoettle Co.)

Cosmetics and Personal Accessories. First award, Rayve Home Permanent (Pepsodent Div., Lever Bros. Co., American Coating Mills). Honorable mention: Toni Home Permanent (The Toni Co., United Board & Carton Corp.); Coty Christmas boxes (Coty, Inc., F. N. Burt Co., Inc.); Naylon Combination (Schnefel Bros. Corp., Wilkata Folding Box Co.).

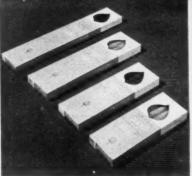
FRESH PRODUCE. No first award. Honorable mention, Indian Trail gift package (Cranberry Growers, Inc., Ace Carton Corp.).

SOAP. No first award. *Honorable mention*, Super Suds (Colgate-Polmolive-Peet, Hummel & Downing).

¹ See Modern Packaging, Oct., 1948, page 139.

Best folding boxes in their fields









Textiles

Miscellaneous

Beverages

Medicinals

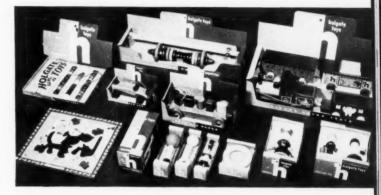
Confections. First award, Y & S Lozenges (National Licorice Co., Robert Gair Co., Inc.). Honorable mention: Wrigley's Gum (Wm. Wrigley Jr. Co., Hummel & Downing Co.); Candy Pills (Empire Products, Richardson Taylor-Globe); Gift Candy (Blum's Candies, Andre Paper Box Co.).

Food. First award, Kroger Macaroni Spaghetti (Kroger Co., Sutherland Paper Co.). Special honorable mention, Gumpert's Cake Mixes (S. Gumpert & Co., Inc., Lord Baltimore Press). Honorable mention: Jewel Gelatin Dessert (Jewel Tea Co., U. S. Printing & Lithograph Co.); Steiner Egg Noodles (Steiner & Co., Robert Gair Co., Inc.).

TOBACCO AND RELATED PRODUCTS. No first award. Honorable mention, Parliament Christmas Carton (Benson & Hedges, Densen-Banner Co.).

Toys. First award, Holgate Toys (Holgate Bros. Co., Robertson Paper Box Co.).

HARDWARE, APPLIANCES, AUTOMOTIVE SUPPLIES,



Folding box — Grand Prize



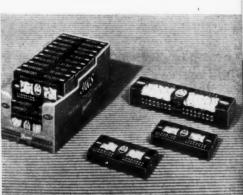


Food

Hardware, Appliances, etc.



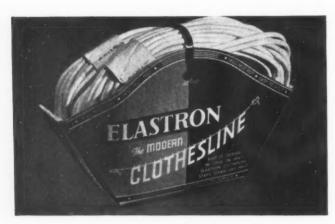




Confections



Seasonal Goods and Miscellaneous



Household and Hardware



Toys, Games and Stationery

Notions and Allied Lines



Sporting goods, Etc. First award, Flint Kitchen Tools (Ekco Products Co., Container Corp. of America.) Honorable mention: Geneva Forge Knives (Ekco Products Co., Container Corp. of America); Ekcoline Kitchen Tools (Ekco Products Co., Container Corp. of America); General Motors Parts (General Motors Corp., Robert Gair Co., Inc.); MacGregor Golf Clubs (Sports Products, Inc., C. W. Zumbiel Co.).

Textiles and Apparel. First award, St. Mary's Blanket (St. Mary's Mfg. Co., Paper Package Co.). Special honorable mention, Rayon Towels (Pacific Mills, Container Corp. of America). Honorable mention: Calloway Towels (Calloway Mills, Atlanta Paper Co.); Baby Blanket (Pepperell Mfg. Co., Robertson Paper Box Co.).

RETAIL BOXES. No first award. Honorable mention: Shoes (various department stores, Gardner-Richardson Co.); Dry Goods (H. Liebes & Co., Fleishhacker Paper Box Co.).

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Beverages. First award, Coronet Brandy (Schenley Distillers Corp., Ace Carton Corp.). Honorable mention: Liquor (Industries Pampero C. A., Robert Gair Co., Inc.); Whisky and Gin Combination (Bellows & Co.; Gardner-Richardson Co.); Liquor (Park & Tilford Distillers, American Coating Mills); Club Cocktails (G. F. Heublein & Bro., Inc., Robertson Paper Box Co.).

FLOWERS. First award, Roses (Hill's Floral Co., Container Corp. of America).

MISCELLANEOUS. First award, Candles (Emery Industries, Inc., Sutherland Paper Co.). Honorable mention: Shoe Laces (Cecil Corp., Richardson Taylor-Globe); Pyrex Glassware (Corning Glass Works, Container Corp. of America); Shellie Nurser Kit (Shellmar Products Corp., Gardner-Richardson Co.); Spec Band (Penny Pendleton Co., Superior Folding Box Co.); Ball Point Pens (B. B. Pen Co., Inc., Ace Carton Corp.); Parker 51 Ink (Parker Pen Co., A. Geo. Schulz Co.).

"5 and 10" contest

Eighteen packaging awards under five classifications were made to manufacturers of products sold over the nation's 5 and 10 cent store counters. The 5 cent to \$1 Packaging Contest sponsored by *Variety Merchandiser* (formerly *Syndicate Store Merchandiser*) has been an annual event (except for two war years) since 1934. More than 250 leading manufacturers entered this 13th annual contest.

Contest judges were J. E. Hawes, vice president of J. J. Newberry & Co., Inc., R. O. Kristiansen, buying executive of McCrory Stores Corp., and Howard Ketcham, color and design engineer. The awards in their respective division were as follows:

Cosmetics and Toilet Goods. First award, Rayve Home Permanent Kit and Refill and Rayve Creme Shampoo packages manufactured by Pepsodent Division of Lever Bros. Co., designed by Raymond Loewy Associates, Chicago. The cartons were made by American Coating Mills (Continued on page 27%)

'Enrobed' cheese

HOT-WRAP METHOD UTILIZES

Because the shelf life of natural Swiss cheese is only about two weeks, a high proportion of the nation's storekeepers refuse to stock this highly perishable food. As a result, its consumption to a large extent is limited to areas nearest big producing centers.

With the help of a revolutionary "hot-wrap" process in which natural half-pound blocks of Swiss cheese are "enrobed" with a coating of melted natural cheese and then overwrapped and sealed in a special coated cellophane, the Cheese Producers Cooperative Marketing Assn. of Monroe, Wis., hopes to change all this.

In a Waukesha, Wis., plant, utilizing specially developed machinery which eventually will be built and licensed to users such as the Monroe cooperative, about 4,000 packages daily are being produced by the hot-wrap process in a four-hour shift. This soon is to be extended to 8,000 units in an eight-hour day. The cooperative is marketing this cheese under the brand names "Honey Creek" and "Heart-O-Swiss." Tests show shelf life is extended as much as three months.

The production line at Waukesha is geared for a maximum of 100 units a minute. The half-pound blocks are cut from the whole cheeses in a second-floor cutting room and proceed via gravity chute into the machine on the first floor, where they are automatically ejected into the expanded cellophane pouches moving in cups on a conveyor belt. The pouches have received a preliminary charge of the molten cheese and as the blocks are immersed in the cheese liquid, compressed air completes the spreading of a ¹/₈-in. surface coating.

The pouches are then folded shut and sealed by the heat of the contents. They pass through a solenoid-controlled check-weighing machine which automatically kicks underweights out of the line. These undersized cheeses, plus the scraps from the original cutting of the blocks, go into the hopper to provide the coating.

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The secret of the unusual protection claimed is not only in the self-coating of solidified cheese, but in the inside coating of the rotogravure-printed cellophane wrapper, which consists of 65% amorphous wax, plus resins, synthetic rubber and other ingredients. The coating melts partially on contact with the "hot wrap" of cheese, thus making intimate contact with the cheese and excluding air.

The package illustrated, printed in a single dark-brown color, is the one currently being marketed, but soon to appear is a new three-color wrapper playing up the "Heart-O-Swiss" brand name, illustrated with Alpine scenes and including a diagram and explanation of the protective "enrobing" process. The package must be kept under refrigeration. Plans are now under way to extend it to other perishable porous cheeses.

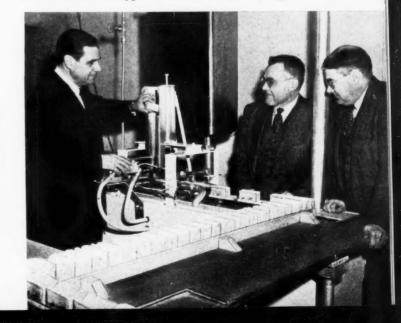
CREDITS: Machine and processing, Grindrod Process Corp., Waukesha, Wis. Cellophane wrap, Milprint, Inc., Milwaukee. "Speedweigh" scale, Toledo Scale Co., Toledo, Ohio. SCRAPS FROM CUTTING OF HALF-POUND BRICKS: PROMISES TO EXTEND MARKET

FOR PERISHABLE SWISS CHEESE



SPECIAL CELLOPHANE wrapper adheres closely to cheese, is sealed by heat of hot self-coating on brick. This double protection is said to preserve quality of cheese as long as 3 months.

MACHINE, with a production rate of 100 packages a minute, first coats the partially formed cellophane pouch inside with hot-melt cheese, then inserts the brick, forms coating uniformly around brick and seals package. Underweight bricks are kicked out by a check weigher and returned to the hopper to be melted for coating.





VISIBILITY PACKAGE permits shopper to see the product. Dealer is encouraged to display it. Foil-covered tray, holding two packages—one for knife sharpener and the other for scissors sharpener, increases unit sale, promotes items as gift unit.

Whetting the impulse

DISPLAY BOX FOR KNIFE SHARPENER CAPITALIZES ON KNOWLEDGE

THAT SUCH ITEMS MUST PROMOTE THEMSELVES FOR UNPLANNED PURCHASES

People don't often start on shopping expeditions saying, "Today I'm going to buy a knife sharpener." Sharpeners usually are impulse items bought while in a store shopping for something else.

Therefore, the sharpeners must be on the counter where shoppers can see them. Display packaging must provide the showmanship to attract and clinch the sale.

Aladdin sharpeners, made by New England Carbide Tool Co., Cambridge, Mass., are a quality line, made of Carboloy—"the hardest metal known to man"—and are well designed. Consequently they are higher priced than ordinary sharpeners. Thus, the company not only has the problem of creating impulse sales, but of overcoming the natural resistance to price.

overcoming the natural resistance to price.

The old packaging didn't do it. In a dark blue box with yellow base, the package had to be opened to see the product. It had absolutely no display value to encourage the dealer to put it on the counter. It carried no self-selling story to describe advantages over other types of sharpeners. About all it provided was identification and a unit housing for each individual item.

Plans for increased business had to start with the

package. A study of the problem brought about a quick scrapping of the old box. In its place there evolved a brand new conception founded on specific merchandising principles indigenous to the product—a conception, incidentally, which should be considered more often in package planning, rather than thinking first in terms of package forms.

The new Aladdin package is neither a set-up box nor a folding carton, but rather a miniature individual display case made by a set-up boxmaker.

The base which holds the sharpener is simply a diecut piece of embossed, foil-laminated paperboard, scored so that the ends stand upright. Over this is secured an arched piece of rigid transparent acetate, beaded at each end. The acetate is glued to the base. The beading holds the upright, rounded end flaps in place. One end flap has a die-cut thumb-notch for convenient opening of the package.

The product is completely visible through the acetate cover against the aluminum-foil surface of the paper-board. This silvery surface helps to suggest a product associated with cutlery. The reverse side of the paper-board is color printed, thus providing ample space for

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the modernized Aladdin logotype and product name on the ends, while the bottom is used for printing directions, money-back guarantee, company address and other essential informative details.

The company can present both knife and scissors sharpeners in this package, differentiating them by red printing for the knife sharpener and green printing for the scissors sharpener. In fact, at Christmas time, one of each, arranged in a foil-covered tray, made a colorful gift package combining the two items.

The increased counter space devoted by dealers to the sharpeners and the increased sales since the packages were introduced is convincing evidence of the effectiveness of the new packages.

The Aladdin sharpeners are now out front where the shopper can see them. The transparent package permits quick visibility. Bright, colorful printing of strong brand-name letters assures quick identification. The package is effective for display either flat on the counter, standing on end or in mass arrangement. The informative copy on the bottom tells clerk and shopper the complete sales story. It's a self-sufficient advertising unit at the point of sale.

In addition to the individual packages, Aladdin also gave new impetus to the selling of its skate sharpeners. Previously these had been packaged individually in cellophane envelopes with a printed card inside the envelope promoting the sharpener and a direction insert. Recently the skate sharpeners were redesigned of plastic and to introduce the improved product the company wanted a better merchandiser at the point of sale. An interesting type of easel display card was devised on which the skate sharpeners are clearly visible when placed in partitioned, foil-laminated paperboard trays which slide back and forth like drawers under acetate sleeves affixed to the display card. The selling copy reads, "Sharpen Your Own Skates," stressing the Aladdin brand name, with line illustrations of children in black and red to show how it is done. The display takes a minimum of space and gets a conspicuous place on counters featuring skating equipment.

This entire packaging and display program will stand on its own feet, the company says, with or without advertising—but of course it provides most useful support for an over-all advertising campaign using various types of media. Although no actual sales figures are available, the company reports repeat orders daily and salesmen say that sales are made easier.

CREDITS: Transparent "Nuvopak" packages and display, Cambridge Paper Box Co., Cambridge, Mass. Acetate, Eastman Kodak Co., Rochester, N. Y.



OLD PACKAGE for skate sharpener was a cellophane envelope, with identification and directions on the paperboard stiffener. This gave product visibility, but was not sufficiently convenient for use as a display.

COUNTER DISPLAY for skate sharpeners is convenient for promotion in sporting goods departments. The sharpeners are in partitioned trays, secured to display cards by acetate sheet. Trays slide back and forth like drawers. Direction outserts are attached to sharpeners by rubber bands.



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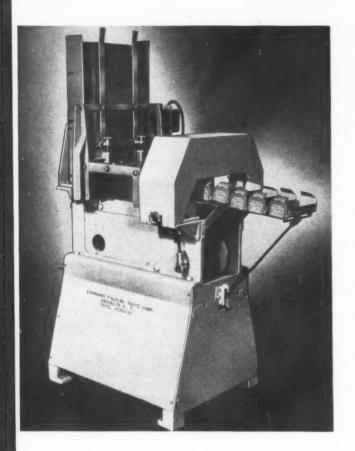
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Automatic tray-forming machine

A special type of folding paperboard tray, widely used by fresh produce pre-packers for tomatoes, lemons and apples, can now be formed automatically on a new machine developed by the supplier of the trays. The Tripl-Tite Tray Division of Standard Folding Trays Corp., Brooklyn, introduced the new machine at the recent United Fresh Fruit and Vegetable Convention in Chicago.

Previously the double-reinforced-bottomed trays were opened manually. With the new machine, from 35 to 95 trays can be erected per minute. This capacity speed of 95 per minute is considerably faster than that of a skilled hand opener, whose maximum speed is approximately 60 per minute, according to the company.

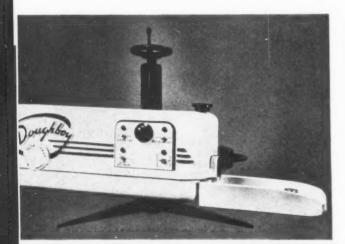
A special feature of the unit is a throw-out clutch which automatically stops the ejector blade feed in the event of a jam. Folded trays feed into the mechanism from a stacking magazine. Opened trays can be discharged right onto a conveyor belt leading to an automatic wrapping machine and filled as they travel on it.

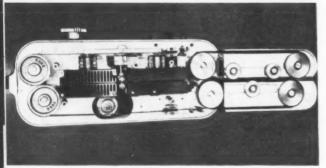
When the machine was first developed, it was 51 in. long; the present model, illustrated here, is only 24 in. long. Opening mechanism can be adjusted to handle slight variations in the size of trays, the company reports, so that trays from 8 to 10 in. long and from 2 to 3 in. wide can be accommodated.

Eight commission and produce houses in the Midwest area and in the Atlantic states are using the machine at the present time, including one chain grocery company, it is reported.

Machines may be obtained on a lease basis when they are used in conjunction with the trays.

NEW MACHINERY





Continuous band sealer

Doughboy Industries, Inc., New Richmond, Wis., is introducing a new continuous band heat sealer, suitable for sealing bags made of polyethylene, saran, Pliofilm and vinyl films, and in either plain or gusseted form.

Sealing rate of 264 to 528 lineal inches per minute is reported by the manufacturer. Rate of speed can be adjusted by altering a hand wheel on the outside of the sealer.

The basic principle employed in the continuous band sealer involves sealing under pressure and the use of moving metal bands to carry the material first through the heat-sealing bars and then through the cooling bars. The bottom illustration at the left illustrates the sealing mechanism with the housing removed to show the details.

Special patented construction of the sealing bars produces a narrow seal and eliminates all possibility of pin-point leaks, according to the company which is manufacturing the sealer under special license from Dow Chemical Co.

The machine operates at temperatures ranging from 300 to 400 deg. F. Dual heat controls with special thermostats for each of the sealing bars are said to assure constant temperatures, while voltage control safeguards both the life of the heating elements and the life of the thermostats.

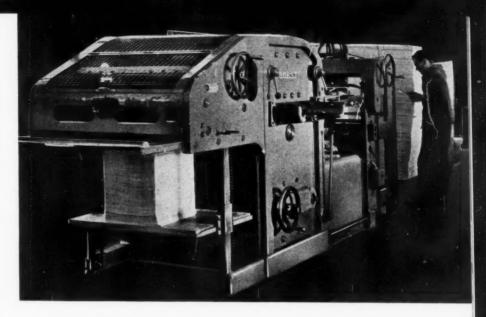
The control panel (upper left) includes heat indicators and pilot lights. Over-all dimensions of the unit are 40 in. long, 12 in. wide and 12 in. high.

Cutter and creaser

A new high-speed cutting and creasing machine made by J. Bobst & Fils Sa., Prilly-Lausanne, Switzerland, is now available to folding box manufacturers in this country through Bobst's U. S. sales agent, H. H. Heinrich, Inc., New York.

Called Autoplaten, the machine (model S.A.P. 900 shown) is equipped with a suction pile feeder to feed sheets of board in stream formation. Sheets are gripped as on a printing machine—by the largest side and during the standstill of the bar. They remain flat through the machine and are pulled by the same gripper bar from the feeder to the cutting station, and then to the delivery.

A special mechanism locks the gripper bars at feeding and cutting stations, thus securing hairline register. Maximum sheet handled is $35^{7}/_{16}$ by $24^{13}/_{16}$ in.; minimum sheet size is $17^{11}/_{16}$ by $12^{5}/_{8}$ in. Speed guaranteed by the company is 4,500 sheets per hour for paperboard; for paper it is slightly less.



Stock ranging from 60 lbs. up to 0.046 in. can be handled.

Pressure control is micrometrically adjustable by steps of 0.00079 in., without key or tools. Impression power is 130 tons, according to the manufacturer. The cutting and creasing die can be locked in the chase outside the machine. Change of chases and steel counter plates can be made in about five minutes, it is said.

It is possible to keep the die of the first job in its chase with all the makeready behind the die and on the steel counter plate so that the job can be started again within a few minutes. The bottom platen is driven by four toggle levers.

Floor space required for the machine is as follows: length, 14 ft. $2^{1}/_{8}$ in.; width, 5 ft. 7 in.; height, 5 ft. $10^{7}/_{8}$ in. Net weight without motors is $7^{1}/_{2}$ tons.

NEW MACHINERY

Cylinder-end beader

Fabricators of transparent plastic containers will be interested in two new machines made by the Taber Instrument Corp., North Tonawanda, N. Y. The first is an electronic cylinder seamer which seals a plain or lithographed rectangular blank of transparent plastic into a cylindrical form, making an overlapping seam. It is designed to operate with the new cylinder-end beader to turn out one completed container every minute.

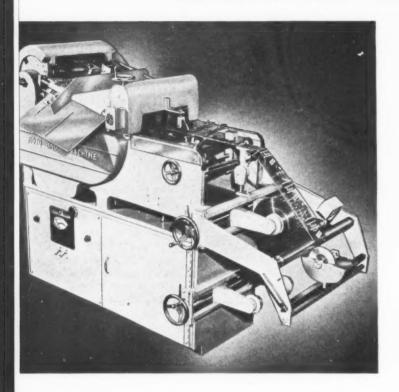
The cylinder-end beader, model 135 (illustrated), will handle a range of diameters from $1^4/2$ to 8 in. and lengths from 1 to 15 in. The beading mechanism consists of two electrically heated, thermostatically controlled beading dies diametrically opposed and actuated longitudinally by a cam. The dies rotate at a constant speed and have a series of concentric beading grooves on their working surfaces that permit beading various diameters without the necessity for changing dies.

When beading only one end, the machine can be equipped to hold two cylinders, thus doubling its production capacity. The machine can also be equipped with an automatic unloading device to discharge the completed containers. During the beading operation, the cylinders are held securely by cam-actuated mechanical holders. Inserts for these holders can be cut from plywood or Masonite to fit the size cylinder to be beaded.

Materials range from 0.007 to 0.015 in, thick for lap-joint and spiral-wound cylinders. Spiral-wound paperboard containers 0.020 to 0.030 in, thick can also be beaded.



Machine for double heat sealing of bags



The Roto Bag Machine Corp., New York, is producing a machine said to be capable of fabricating 120 double-sealed bags per minute, using almost any of the heat-sealable materials, the company reports.

An interesting feature of the new heat sealer is the use of General Electric silicone rubber on the heat-sealing bars as pressure pads. Now incorporated in the machine as part of the standard equipment, the silicone rubber pads are said to eliminate the problem of thermoplastic materials sticking to the bars.

Exposure to temperatures of 300 to 400 deg. F. in the sealing operation does not increase the surface hardness of the rubber and there is almost no decrease in its flexibility or resiliency over a period of use, it is said. Furthermore, the pads do not soften or become sticky after continued exposure to the heat.

The new sealer can be adjusted to make double seals in flat, gusset, single-wall or duplex bags.

Change-over time from one bag size to another is said to be rapid and easily accomplished.

Bag sizes which can be double sealed on the machine range from 2 to $9^{1/2}$ in. wide and from 3 to 16 in. long.

The company recently announced the successful adaptation of one of their machines for the manufacture of bags made from Pliofilm.

NEW MACHINERY

High-speed automatic case sealer

Food and beverage processors whose filling lines are set up for high-speed operation will be interested in a new case unloader that automatically removes cans or bottles and strips the case and its partitions free of the contents by positive action, which has been developed by the Standard-Knapp Division of Hartford-Empire Co., Portland, Conn.

The machine is already being tested

in one plant, where it is installed at the beginning of a mayonnaise filling line, and the user reports it is operating satisfactorily.

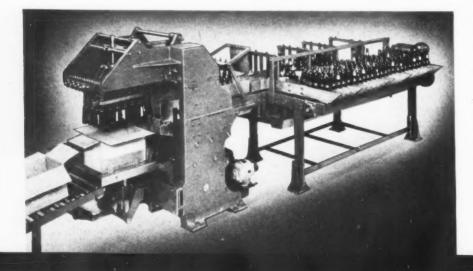
Capacity of the automatic unloader, designated as type 134D, is 10 to 12 cases per minute, depending upon the size of the case and the manner in which it is fed to the machine.

Removal by positive action holds true

even where bottles or cans are tightly packed in the case, according to the company. Cases are positioned on the infeed of the unloader; the container withdrawing mechanism—an arrangement of spindle-like grippers—lowers over the case and each of the containers in the case is gripped at the neck or mouth and lifted out onto the table.

The case unloader will discharge bottles or cans in a single lane through a converger or according to the line-up within the case. The equipment is designed to feed directly into an unscrambler, if desired, and from there into a conventional, mechanized line.

While practically any type of bottle, wide-mouthed or narrow-necked glass container or can can be unloaded from its case by the new machine, the company requests that samples of the case and container be submitted to them to assure maximum performance of the unloader under actual operating conditions.



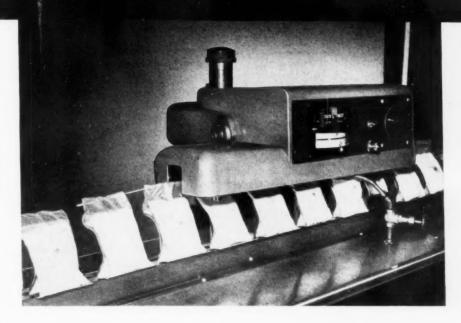
Impulse heat sealer

A new type of heat-sealing unit for thermopolastic materials which operates on an "impulse" principle is being shown by Precision Paper Tube Co., Chicago.

Using a non-electronic principle of operation, the sealing bar remains cool to the touch except during actual contact with the material to be sealed, when there is a momentary burst of electric current through the bar to produce heat for the sealing action.

Actual sealing interval on the bar is \$\frac{1}{95}\$ of a second, it is said. Speed at which sealing can be accomplished thus depends primarily upon how fast the bags can be carried to and from the unit. In the operation illustrated, the bags are carried through the sealer upright in a pocketed conveyor, with the tops resting on a guide bar, at the rate of approximately 40 per minute. The unit is reported to handle materials at speeds as high as 125 ft. per minute.

The machine is available in three forms: a simple bar sealer, a bag-closing



unit (illustrated) and a bag-making machine. In the latter form, the sealer will produce bags from sheet plastic material, including polyethylene and Pliofilm, form continuous tubes from sheeting, or convert continuous extruded tubing into bags by producing an end seal and cutting off the bags as they are made.

When the "impulse" principle is used

in conjunction with sealing wheels or rollers, as in producing a continuous seam for tubing, the pulsating electrical current is applied only at the actual point of seal. Controls are provided to maintain an even temperature on the rotary type.

Low power output and wide adaptability to thermoplastics are advantages claimed for the unit.

NEW MACHINERY

Telescoping volumetric filling machine

A new telescoping volumetric filling machine, specially suited for filling abrasive materials such as cleansing powders, has been developed by the J. L. Ferguson Co. of Joliet, Ill.

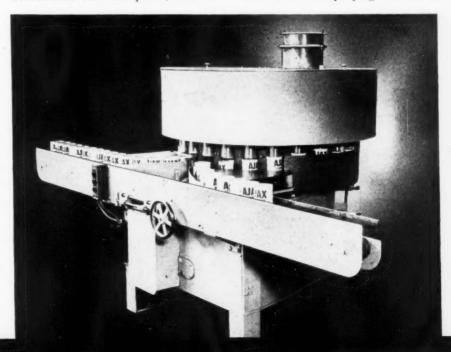
It is also being used for packaging many other types of powders and granular products such as synthetic detergents, soap powders, pancake flour, corn meal, farina, barley, oats, grits, self-rising flour, regular flour, etc., which are packed in bottom-sealed cartons, round, rectangular or square cans, jars or canisters.

The machine operates at a high speed—100 or more containers per minute, it is reported. The containers are raised onto the telescoping filling tubes, then lowered in one smooth, continuous operation as the material flows in, so that a pouring action rather than a dumping effect is created. This method is claimed by the manufacturer to avoid waste of the product being filled, as well as elimination of dust.

Accuracy and uniformity of fill are reported by users to be excellent.

When being used for food products or for abrasives, the unit is constructed with stainless steel filler plates, stainless steel filling tubes and stainless steel package tracks.

The unit requires only a very small amount of floor space, as can be seen from the accompanying illustration.



Novelty tooth paste caps

THE TREND CONTINUES, WITH DOG AND INDIAN HEADS ON LEADING BRANDS

What influence is the novelty premium cap having on the tooth paste market? Will companies selling tooth paste with only standard caps find competition tougher without a clever premium deal?

In February, Lambert Pharmacal Co. started national promotion of its dog-head caps on Listerine Tooth Paste. Whitehall Pharmacal is following its successful Kolynos Jolly Kap deal* with a new kind of Kolynos Indian Kap premium offer known as "Big Chief Pastein-Mouth."

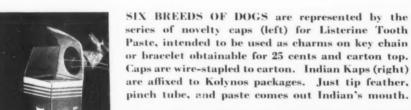
The Lambert "Pup-Pack" promotion is built around six different dog heads molded of cellulose acetate in six colors-36 different dogs in all-serving as caps for new junior-sized Listerine Tooth Paste in a specially packed 24-to-the-carton counter display for appeal to the junior market. Each 25-cent tube, plus its dog-head cap, sells for 29 cents. The dog-head caps are wire stapled by hand to the carton tops. When removed, they may be screwed on top of the tube in place of the regular cap. They are also intended to be used as charms by screwing them on to a key chain (for boys) or a charm bracelet (for girls) obtainable for 25 cents and a carton top. It takes six dog heads to fill either the bracelet or the chain; therefore the idea encourages a collector's habit and thus repeat sales of Listerine Tooth Paste. Sales increases of 70 to 100% in seven test areas impelled Lambert to go ahead nationally.

Like the Jolly Kap, which the company says has sold millions of tubes of large Kolynos Tooth Paste, the new Kolynos Indian Kaps have not only the advantage of novelty appeal to make people try Kolynos, but provide a cap that stays on the tube so that Johnny and Mary do not lose them down the washbowl drain. When the "Big Chief Paste-In-Mouth" cap is screwed onto the tube, it does not have to be taken off to get the tooth paste. The paste is ejected through a slit that appears to be the Indian's mouth. The head gear swivels on lugs that cover the slit when the tube is not in use.

The Indian heads are injection molded of two pieces of plastic—polystyrene for the head itself and cellulose acetate for the swiveling head gear—by the same molder who designed and makes the Jolly Kaps. The Indian Kaps are secured to large-sized Kolynos cartons with slotted strips of transparent acetate, held in place with strips of cellophane tape. They are packed 24 to a display carton promoting the deal.

CREDITS: Listerine dog heads designed and molded by The Plymouth Co., Inc., Plymouth, Wis., of acetate supplied by Nixon Nitration Works, Nixon, N. J. Pup-Pack carton, Superior Folding Box Co., St. Louis, Mo. Wire stapler, Bostitch-Southwest Co., St. Louis, Mo. Kolynos Indian Kaps designed and molded by Kaye Plastics Corp., Stelton, N. J. Kolynos display cartons, Keystone Folding Box Co., Newark, N. J.

* See "Kolynos' Jolly Closure," Modern Packaging, Nov., 1947, page 106.









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Using printed wrapping material in economical roll form, the Model FF seals the wrapper to the unprinted fibre cans. The use of unprinted fibre cans eliminates the expense of printing small quantities for a given brand, and also the need for maintaining a variety of printed cans in stock.

The wrapper can be applied either before or after the contents are frozen. Whether the container is wet, frosted or dry, a uniformly neat wrap is achieved, because the ends are sealed in such a way that any moisture inside the wrapper can escape.

The Model FF has a speed of up to 100 packages per minute and is quickly adjustable for various sizes.

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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. . Technical Editor

Tube quality control

NEW METHODS OF ASSURING THAT ENAMEL, CAP AND COATING WILL BE

COMPATIBLE WITH PRODUCT AND USE. By Milton Schor*

The actual process of manufacturing collapsible tubes entails rolling, blanking, lubricating, extruding, threading and trimming, washing or degreasing, annealing, enameling, decorating, lacquering, capping, boxing and shipping. In some plants one or two of these operations are eliminated or rearranged so that they do not necessarily follow the above order.

This manufacturing procedure does not necessarily assure production of high quality collapsible tubes. In addition, constant development work must be carried on to produce new enamels that have superior adhesion and chemical resistance; inks that can be applied in production yet have non-bleeding characteristics in contact with the product; lacquers that have high gloss and are resistant to the product and also do not mar easily; internal protective coatings that protect the tube and the product, yet maintain its flexibility; cap material that does not bleed in contact with the product and withstands scuffing and chipping; cap liner material that prevents leakage and loss of flavor and moisture.

These are but a few of the problems in which there is constant endeavor towards improvement.

In addition to new developments, tests have been devised to enable quality control over the materials used, as well as methods of manufacture. Packaging tests are constantly being run on current as well as proposed future products. In one particular case one tube is taken off each line every hour and filled with the product to note the incidence of corrosion. Finished tubes are taken from each line periodically and subjected to tests which determine enamel adhesion and the bleed characteristics of the inks. The flexibility of aluminum tubes is tested periodically on specially



1. HOT-FILL TEST. Ability of enamel to withstand crimping of the tube after filling with hot product is determined by crushing the bottom of the tube with the usual type of crush-test apparatus and immersing the crushed area in water maintained at 150 deg. F. for one minute.

^{*} Director of Research and Development, A. H. Wirz, Inc., Chester, Pa.

designed equipment. Bleed tests are constantly run on the powder, preforms and finished caps to control quality.

Different types of tests are constantly being run to note the coverage and flaws on internal protective coatings. These tests indicate the extent of the work other than actual manufacture that must be carried on in order to maintain high quality.

Most tube manufacturers are familiar with crush and immersion tests to determine adhesion and resis-

2. CAP-BLEED TEST. In the separate cups of product are placed whole plastic cap, preforms, scratched cap, molding powder and crushed cap. Cups are held in desiccator at 90% R. H. and evidences of bleed are recorded after 24, 48 and 72 hrs. In this test the powder, preforms and crushed cap show evidence of bleeding.



PHOTOS, COURTESY A. H. WIRZ CO

3. ELECTROMETERTEST for breaks in internal coating. Product is the electrolyte. Coating is considered free from porosity if there is zero reading on electrometer. Same apparatus can be used for silver nitrate test with copper electrode; dark silver salt deposit shows up any flaws in the tube coating.

tance of enamels and inks.† However, new tests are constantly being devised and some of the newer ones that have been found helpful in quality-control work are described below.

Hot-fill test

The following test is used to determine the ability of an enamel to withstand the crimping operation after filling with a hot product.

This test is performed a minimum of three days after enameling; then—

- 1. Crush enameled tube, using the usual crush test apparatus.
- 2. Insert crushed tube into hot water held at 150 deg. F. (Fig. 1).
- 3. Remove crushed tube after one minute and examine the enamel. Do not open the crushed tube.
- 4. Classify the enamel as follows: *Acceptable* if there are no cracks at the edges of the crush and also no tackiness. If an enamel does not meet this requirement if cannot be used on a tube that holds a hot-filled product.

Cap-bleed test

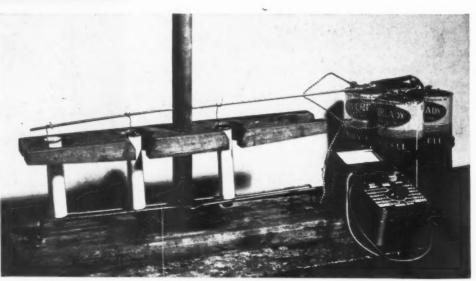
Should the product of a tube come in contact with a cap that is not bleed-resistant, there is danger that the product will be discolored. This detracts from its quality.

To avoid this, it is desirable to have a molding powder which does not bleed. However, since this is not available in many cases, each phase of cap making is tested in order to rule out bad lots of powder and imperfect caps.

The experience at our plant indicates that a powder that bleeds need not necessarily rule out a cap properly molded and without imperfections. To determine the bleed characteristics at each phase of manufacture, the following test is run:

Select samples of powder, preforms and finished caps.

†See "Testing Collapsible Tubes," Modern Packaging, Feb., 1948, p. 148.





4. DEPOSITION OF COPPER in flaws of internal protective coating as a result of copper sulphate-hydrochloric acid control test. Dark areas indicate breaks in coating.



5. ULTRAVIOLET LAMP provides a quick test of amorphous wax internal coatings. The wax fluoresces and any break in the coating shows up as a dark streak in coating.

2. Scratch with a file the top surface of a finished cap.

3. Into separate small glass jars containing the product to be packaged, place the finished cap, preforms, powder and scratched cap. (See Fig. 2).

4. Place the jars in a desiccator held at 90% relative humidity (use saturated zinc sulfate solution).

5. Record bleed, if any, after 24 hrs., 48 hrs. and 72 hrs.

6. The finished and scratched caps must not bleed after the 72-hr. test. If the powder and preforms bleed, do not reject the lot of caps provided the finished and scratched caps do not bleed. However, test each batch of caps very carefully. The better caps are those in which the powder and preforms do not bleed.

Tests of internal coating

In order to package some products safely in collapsible tubes, some type of protective internal coating is necessary.

Depending upon the product to be protected, different coatings are used, such as amorphous waxes, vinyls and phenolics. Some newer materials are being investigated for internal coatings, including the polyethylenes, neoprenes and saran.

Complete coverage is essential, since flaws in the

coating will lead to accelerated corrosion and deterioration of the product.

A series of tests has been devised to determine the extent of coverage and porosity of the internal coating. For those coatings where there must be absolute coverage and no porosity, an electrometer test is used (Fig. 3) in which the tube is made one electrode, the product is the electrolyte and another metal at the other end of the electromotive series is the other electrode. A coating is considered free from porosity if there is zero reading on the electrometer; a definite potential reading would indicate a break in the coating.

The above test is not used for control work. For control, the copper-sulphate hydrochloric acid test (Fig. 4) can be used, in which case copper deposits out wherever there is a flaw.

Also, for amorphous waxes, another rapid test can be made using ultraviolet light (Fig. 5), in which case the wax fluoresces and any break in the coating shows up as a dark spot.

Also, as a control, the silver nitrate test can be run using apparatus as shown in Fig. 3. Six volts are impressed across the cell comprising the tube as one electrode, silver nitrate as the electrolyte and a bar of copper as the other electrode. A dark silver salt deposit shows up flaws in the protective coating.

Thermosetting enamel for glass

NEW HIGH-BAKE MATERIAL WITH EXCEPTIONAL HARDNESS AND ADHESION

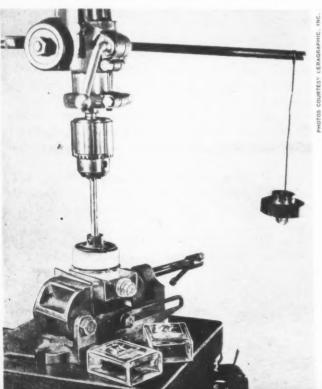
WIDENS FIELD FOR SILK-SCREEN DECORATION. By Anthony Velonis*

new thermosetting enamel for printing on glass offers extraordinary hardness and resistance to wear and has been found practical for many containers that heretofore could not be decorated satisfactorily with organic enamels.

"Applied color labeling" (ACL) is the term generally used to describe the application of descriptive design, trademark, directions, etc., on a glass container without using paper labels or decalcomanias.† The enamels almost universally used for applied color labeling are of the ceramic or "glass color" type, requiring temperatures up to 1,125 deg. F. for the fusing of the microscopic glass particles or flux to trap and fix the pigments to the glass. Milk bottles, soda bottles, tumblers, etc., are decorated exclusively by this method. Low cost and large production enable the glass com-

* Vice president and technical director, Ceragraphic, Inc., Newark, N. J. † See "Ceramic Color Labeling," Modern Packaging, May, 1948, p. 120.

1. HARDNESS TEST is made with drill-press rig mounting a wooden disk capped with sponge rubber and a ring of kraft paper. Comparative scratch and scuff resistance of enamels is determined by revolving disk at set speed and constant pressure for five minutes, examining sample after each minute. New paper is used for each test.



panies to decorate long continuous runs at the source of manufacture.

Many glass users, however, buy a large variety of ware from a number of glass manufacturers. Paper labeling at the filling line has been the accepted method for them and a change-over to applied color labeling for many varied items, printed at different glass sources. would be too costly and too difficult to handle. Speed in filling an ordered item is also important. These conditions are especially true of the cosmetic and toiletries industry. Consequently, a number of custom-decorating firms have grown up during the past 15 years, servicing such glass users near their own plants.

These custom or specialty-service decorators have largely used organic enamels in the past because they were easier to handle and had a finer, cleaner appear-

But it was possible to use these colors only on one-trip glass containers, since organic enamel, even at its best, could not resist repeated washings with hot water and strong alkalies.

For many years now, an enamel has been sought that would resist alcohol, acetone, essential oils, humidity and wetting agents and, at the same time, have hardness, adhesion, gloss, low viscosity and tack, good printing qualities and good pigment wettability. The new "HB" (high bake) enamel, as it has been designated, appears to be the answer. It is not an ink or paint in the old sense. It is a true thermosetting plastic based on a monomer that needs a temperature of 350 to 400 deg. F. for an hour to achieve adequate curing for polymerization.

To understand this achievement, it is necessary to review some of the difficulties experienced with earlier

To attempt to decorate glassware with oil-based, air-dried enamels has now been generally conceded a failure. Some specialty-field firms that have used these in the past did so because they had no other choice at the time. These enamels were applied on bottles and jars largely with improvised machinery by means of silk-screen process or dry offset. However, as shown by bitter experience, durable adhesion of the enamel on glass was a large problem, even for nonreturnable bottles. For a time, lack of alcohol resistance seemed to be the principal trouble. This was overcome by alkyd and phenolic resins and baking.

But there was still the problem of humidity resistance—or lack of it—of organic enamels generally, baked or otherwise. While adhesion seemed perfectly adequate for most of the year, an extended period of high humidity, such as we get most of the summer in many localities, was enough to loosen the enamel from the glass. Wetting agents found in most of the modern creams, emulsions and shampoos also weakened the grip of the enamel on the glass.

All air-oxidizing oil enamels must, of necessity, have a molecular porosity in order for the oxygen to penetrate through the depth of the film. Undoubtedly this same porosity is responsible for allowing water vapor to penetrate through to the glass surface. When the water hits the glass it stays there, held by the hydrophylic salts, such as soda ash, on the glass. This water builds up an osmotic pressure sufficient to release the enamel film.

The problem, then, was to find a good enamel with a water-penetration factor of zero. This took some doing, because most plastic varnishes lacked one characteristic or another and almost all failed the water-penetration test.

Melamine formaldehyde resins had excellent humidity and water resistance, but only when applied at the monomer water-alcohol stage. Pigments could not be milled into this stage of the resin because it was unstable; the resin precipitated itself out of solution through self-polymerization. Higher stages made excellent modified varnishes, but humidity resistance again was lost. There was enough of an indication here to show, however, that if a suitable monomer could be found, water resistance might be achieved.

Eventually a monomer was found that did not need components requiring air to complete polymerization. The film became dense and completely impervious. It was self-plasticizing. It had sufficient elastomeric properties to avoid brittleness. When pigment was milled into the resin to produce an enamel, it had all of the characteristics necessary for good printing, plus complete water resistance. This seemed, finally, like a practical glass-decorating medium. It had greater color range, pigment density and luminosity than ceramic applied color, making it a natural again for cosmetic and such types of packaging.

The final modified liquid "HB" monomer is specially treated with the pigments before milling to enhance its wetting properties. The final result is an ink or enamel having the very finest pigment (colloidal) suspension.

Optimum baking schedules may range from 45 min. at 400 deg. F. for dark colors to 90 min. at 340 deg. F. for light or pastel colors. Baking at these temperatures limits the choice of pigments. Some organic pigments sublimated; others changed color or bleached out. When a light color was superimposed over some colors such as bright red, the red would tint the light color to some extent. Inorganic pigments are now chiefly used, but many of these are crystalline and abrasive and do not wet properly. Consequently these pigments have to be deflocculated in special equipment.

TABLE I—COMPARISON TESTS; ENAMELS (Color identifies new HB high-bake thermosetting enamels; black conventional organic enamels)

Enamels are identified, with time and temperature of curing.

	D. 1 C40 000 1 1 10 10	0 1 11 // //
A	Red C42, 375 deg.—60 min.	Optimum baking. (HB thermosetting monomer.)
В	White C45, 350 deg.—90 min.	Optimum baking. (HB thermosetting monomer.)
С	Black C68, 400 deg.—45 min.	Optimum baking. (HB thermosetting monomer.)
D	Black S2, 400 deg.—30 min.	Optimum baking, Alkyd- phenolic-melamine (high- dryer).
Е	White 083, 250 deg.—90 min.	Optimum baking. Alkyd- melamine-urea.
F	2 red 342, 250 deg.—90 min.	Optimum baking. Alkyd- phenolic-melamine.

In the tabulation below, test ratings for properties of each of the above enamels are scored as follows: excellent, 10; very good, 8; good, 6; fair, 4; poor, 2; very poor 0.

7	Test Property			Sc. Enai	ore mels		
		A	В	C	D	Е	F
1	Printability; viscosity, tack, flow, etc.	10	10	10	8	10	10
2	Appearance; gloss, opaqueness, waves, etc.	8	6	8	10	10	8
3	Hardness; resistance to scuffing	10	10	10	8	6	6
4	Adhesion; dry, sharp instru- ment	10	10	10	10	10	8
5	Adhesion; dry, fingernail	10	10	10	6	4	4
6	Solvent resistance; alcohol	10	10	10	10	2	2
7	Solvent resistance; contents	10	10	10	10	2	0
8	Adhesion; after immersion cold water 30 min.	10	10	10	10	4	4
9	Adhesion; after immersion 120-deg. soapy water. 15 min.	10	10	10	8	4	
10		10	10	10	6	6	2
	Final numerical score—(100 is highest possible)	98	96	98.	86	58	44

Wetting and fine dispersion are important, because without these properties high gloss is not achieved and either polymerization is inhibited or film denseness is sacrificed.

Test procedures

Test procedures which establish the qualities of this new enamel are evolved from the practical requirements of non-returnable containers.

The general test summary shown as Table I reflects comparative properties of various enamels for printing by silk screen. Better descriptive valuations than "fair," "good," etc., should be used, of course, especially since experience has shown that anything less than a score of 90 makes the enamel unacceptable.

Each desired or tested property is given a maximum value of 10. There are 10 different tests used, making a total possible score of 100. Each value of 10 points is graded in steps of two points each. When each

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column is added, total scores of enamels are obtained.

1. Printability: viscosity, tack, flow, etc. The first property listed on the summary table depends on the experience of the technician for accurate evaluation. The enamel is printed through a silk screen on flat glass bottles or slides and studied. If the enamel is too viscous it will print dryer and fainter with each succeeding squeegee stroke. If too thin, it will blot through.

2. Appearance: gloss, opaqueness, waves, etc. A reflectometer with black glass as a standard can be used to determine gloss, but it is usually practical merely to estimate this quality visually. Gauging color strength and opaqueness is a matter of judgment and experience. Uniformly screened swatches on glass should stop the passage of light almost completely. After screening, the enamel should flow into a smooth film without any reticulation, waviness or bubbles.

3. Hardness: resistance to scuffing. This and the following seven tests are made after optimum baking for each enamel. If a good-sized swatch is printed on plate glass, a rocking durometer may be used for accurate testing of hardness. However, the test rig shown in Fig. 1 was found practical to test scuffing resistance as well; it duplicates the worst possible abrasion that glassware may take in corrugated cartons during shipping. An ordinary drill press is used. The test pad is made of a wooden disk fixed on a steel shaft which is inserted into the drill press chuck. The disk has a thin layer of sponge rubber cemented to it. A piece of hard kraft paper or a section of canvas is adhered to the sponge rubber. These are the surfaces that bear on the test swatches, which may be either slides or bottles. Constant pressure is maintained by a weight (4 oz.) added to the drill-press lever as shown. Low speed (690 r.p.m.) is used and the swatch is examined after every minute for five minutes. The hardest enamels remain untouched except for a burnished gloss. Softer enamels may be smeared, completely worn through or appear dirty.

4. Adhesion: dry, sharp instrument. A sharpened steel stylus is drawn through the enamel swatch in parallel lines and then cross-hatched, in squares of $^{1}/_{16}$

2. ADHESION TEST under 100% humidity conditions is prepared by placing the samples on a rack over water in a sealed jar for 24 hours. The samples are then tested by scratching the enamels with lead pencils graded from HB to 9H.



in. If the lines are clean and not ragged, and the squares do not chip off after scratching with a 9H pencil, the enamel may be given a value of 10. If a burr appears and the lines are ragged, but the squares still resist chipping, a value of eight may be given. When the squares chip off during the initial scratching with the stylus, a value of zero is given.

5. Adhesion: dry, fingernail. Vigorous fingernail scratching of fine lettering should not dislodge the enamel. If lettering or fine detail does chip off, the enamel does not have adequate adhesion. For more precise grading, sharpened pencils from HB to 9H may be used to scratch the enamel. If a 9H pencil does not scratch the enamel, it may be evaluated as 10; if it does, it may be given a value of eight—but only when a 6H does not scratch it. Scratching with a 6H pencil indicates a value of six; 4H a value of four; 2H a value of two; HB a value of zero.

6. Solvent resistance: alcohol. Slide swatches or bottles are soaked in ethyl alcohol for one minute. If enamel comes off readily, it is given a value of zero. If it resists this, but is loosened after five minutes soaking, it is given a value of two. Resistance for 15 minutes gives a value of four; 30 minutes, a value of six; one hour, a value of eight. Ten is scored when the enamel is completely unaffected by alcohol.

7. Solvent resistance: contents. Same time intervals are used as in Test 6. If intended contents of the particular container are not known, any cosmetic cream or hand lotion containing enough penetrating wetting agents may be used. These substances are merely smeared over the decoration before testing.

8. Adhesion: after immersion cold water 30 minutes. Swatches are tested immediately after immersion, using sharpened pencils HB to 9H and graded as in Test 5.

9. Adhesion: after immersion 120 deg. F. soapy water, 15 minutes. Graded same as in Test 8.

10. Adhesion: after 24 hrs. in 100% humidity. A dessicator (as shown in Fig. 2) or any sealable container may be used. An ounce or two of water is poured into the bottom of the vessel, a stand is placed inside so that the test bottles or swatch slides do not touch the water and the container is sealed. In a short time the air within the container will be saturated to 100% humidity. Adhesion is tested after 24 hrs. as in Tests 8 and 9.

Results

In repeated tests the new "HB" enamel has rated higher than was previously thought possible for any organic material. In the typical test reported in Table I, comparing three HB enamels with three conventional enamels, two of the HB samples scored 98 and one 96, the only deficiencies from a perfect score being in gloss. Nevertheless, gloss was quite adequate, ranging from "good" to "very good."

The highest score achieved by any conventional enamel in this test was 86 and this was a black enamel, which did not show discoloration during optimum baking as has been found to be the case with white or any other color of the same enamel.





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Can be furnished in 25 and 5 Feat Rolls for display purposes and also in 2" Diamor Counter Rolls.

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THERE'S LURE IN THESE PLASTIC BOXES

Manufacturers are rendering their customers an outstanding sales-building service by providing these handy repair boxes for dealers and repair people.

And this applies not only to reel repair parts and fishing tackle but to dozens of other kinds of products now being packaged and displayed—and sold faster—in this modern package. Dealers give them preferential display space.

Crystal-clear, light and hard, retaining polish, these boxes come in six standard sizes—with many different partition arrangements. New boxes are

constantly being added to the line. It will pay you to consult us, whatever your packaging requirements may be.

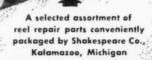
Write for prices, telling us the kind of merchandise to be carried so that we can write you fully.

STANDARD SIZES

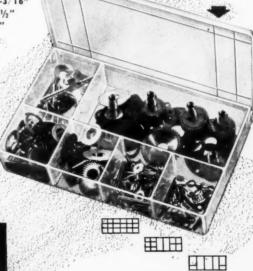
10³/₄"—6.4"—1³/₄" 8¹/₄"—4¹/₄"—1¹/₄"

7 ½"—4½"—1½" 7"—3½"—1-3/16"

61/4"—4" —11/2" 41/2"—23/4"—1" Handy, reel repair box of parts put out by Penn Fishing Tackle Co., Philadelphia, Pennsylvania.



The TOOL COMPANY
3001 EAST 87th STREET - CLEVELAND 4, OHIO



A few of the compartment arrangements being supplied.



Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Applying labels to cellophane

QUESTION: You have suggested that labels could be prevented from falling off cellophanes if they are not affected by high humidity and consequently absorb large amounts of moisture. I find this to be of little guidance toward my problems, as all cellophanes employed for heat-sealing purposes are coaled with a waterproof material which helps to form the bond. Would you please give me more specific information concerning the proper cellophanes or labels for high humidity application?

ANSWER: All cellophanes have the capacity for absorbing large amounts of moisture if continuously exposed to high humidity. However, the rate of absorption is much greater in highly plasticized and uncoated grades. The coated cellophanes still will absorb sufficient moisture under some circumstances to cause a lifting or loss of adhesion of the heat-sealing and moisture proof coating. Under these conditions it is necessary to use the so-called "anchor" type of coated cellophanes which are able to absorb this moisture and remain in contact with water without as great a loss of coating adhesion. The homogeneous films, such as cellulose acetate, do not have this difficulty because they have a lower absorption for moisture and there is no coating to lift off. Also, the formulations of the coatings on thermoplastic labels may be such that water or high moisture content can cause them to lose adhesion and lift from the surface of the plastic film or cellophane.

Water-soluble bags

QUESTION: We are interested in finding a source of supply for a soluble or dissolving type bag and we would be pleased to have information from you as to suggested materials of construction.

ANSWER: It is presumed that you are interested in material which is soluble in water. There are several films which can be considered as being either completely or partly soluble in water, depending upon the temperature of the water. One of these materials is polyvinyl alcohol and another is uncoated cellophane. The cellophane would be softened by hot water, but might not go into solution, while the polyvinyl alcohol

in thin films would be entirely dissolved in a short time. There should not be too much difficulty in getting bags made from either one of these materials.

Bags to withstand freezing and flexing

QUESTION: We would like to find a flexible waterproof paper that can be sealed, seamed or cemented to make a flat bag. We would then insert a corrugated strip and then freeze the unit to make a flexible frozen container. The purpose is to prevent the water from leaking into the shipping case when the ice has been thawed. Can you give us any suggestions on such a paper?

ANSWER: It is very doubtful if any paper could be made which could be fabricated as you require and also undergo the rigorous freezing and flexing treatment. Certainly, this combination of treatments would be so severe as to cause the failure of a paper bag. However, your conditions can be met very easily by several plastics. For example, vinyl, polyethylene, rubber hydrochloride and other thin heat-sealable films would be entirely suitable. These plastic materials would have the advantage of being readily formed into water-tight units by heat sealing and by being completely flexible under the conditions of use. Furthermore their cost should be low enough so that they can be a disposable item.

Color printing made-up multiwall bags

QUESTION: We want to print one or two colors on a multiwall bag that has already been made and which has slight wrinkles and gussets. This bag is four or five ply and measures 24 by 36 in. What method and equipment do you suggest for this operation?

ANSWER: It is doubtful if a bag of this type can be run through any standard printing press and obtain a presentable result. The best solution to your problem would probably be to use stencils or several hand pads. By this means you can get some semblance of design and color in spite of the variations in thickness, wrinkles, etc. However, it is doubtful if you will be able to do too attractive a printing job unless you insert a backing material of some kind to give the bag a flat printing surface.

67% OF AMERICA'S HOUSEWIVES PREFER "CEL-O-SEAL" PROTECTION

for Mayonnaise and Salad Dressing*



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AGING

DU PONT 'CEL-O-SEAL" BANDS



BETTER THINGS FOR BETTER LIVING

"It's sanitary!"—the most popular feature with housewives who expressed a preference for "Cel-O-Seal" on mayonnaise and salad dressing. Shows women are concerned about sanitation—an excellent reason for your taking advantage of "Cel-O-Seal" protection!

"It insures freshness!" Another reason why so many shoppers in this nationwide survey preferred "Cel-O-Seal." Further proof that sealing with "Cel-O-Seal" is an assurance of customer good-will!

"It helps make product tamperproof!" The safeguard against sampling and sniffing provided by "Cel-O-Seal" ranked high with housewives. Insure genuineness with "Cel-O-Seal"!

"It helps make product airtight!" "Cel-O-Seal" holds primary closures securely in place—a big selling point with quality-conscious shoppers!

LET "CEL-O-SEAL" EARN EXTRA CUSTOMER-APPROVAL FOR YOUR PRODUCT

With its many protective and merchandising advantages, Du Pont "Cel-O-Seal" is sure to help in winning new friends for your product. It adds that extra touch in careful packaging—the touch that bespeaks *special* quality.

"Cel-O-Seal" cellulose bands are available in a wide variety of colors and color combinations. Can be indelibly printed with your name or sales message. Easy to apply!

See how your package looks sealed with colorful "Cel-O-Seal." Send us a sample and we'll return it promptly, sealed to sell with "Cel-O-Seal," together with a copy of the complete report of the housewives' survey. E. I. du Pont de Nemours & Co. (Inc.), "Cel-O-Seal" Division, Room 2518-A, Nemours Building, Wilmington 98, Delaware.

According to recent nationwide survey among housewives scientifically selected to represent a sound economic cross-section of American consumers.



Equipment and Materials

SCALE FOR PRE-PACKAGING OPERATIONS

Toledo Scale Co., Toledo, Ohio, announces a scale designed specifically to meet the special needs of pre-packaging operations. The outstanding feature of the "Pre-Pak" scale is an



optical system that blacks out all but the one price and weight wanted. This "spot-lite reading" eliminates the long band of illumination and the full view of many price columns which tend to distract and fatigue the operator in prepackaging where the operations tend to be continuous with a series of weighings at the same price-per-pound. In

addition, this feature makes the apparent chart size six times the actual area. There are 85 selling prices per pound and the different price-computing columns are all easily viewed and read.

PACKAGE TYING MACHINE

Felins Tying Machine Co., Milwaukee, Wis., is offering a tying machine, in three models, which adjusts automatically to any size or shape of bundle, package or box within the capacity of each model. No adjustments are needed for tight tying of various sized packages. Using a wide range of cotton twine, from 3- to 24-ply, the machine single-ties up to 60 packages per minute, or cross-ties 25 to 30.

TINY POLYSTYRENE BOXES

Metropolitan Watch Material Importing Co., New York, announce their entrance into the packaging field with new molded plastic containers of unusually small size, useful in the



packaging of small parts such as dental supplies, hardware, jewelry and watch parts. Boxes are injection molded of polystyrene. One in dimensions $^{15}/_{16}$ by $^{15}/_{16}$ by $^{3}/_{4}$ in. is a stock item available for immediate delivery, while a larger size, $1^{7}/_{8}$ in. long, can be ordered.

30-SPOUT ROTARY LIQUID FILLER

For greater production at lower operating costs, the MRM Co., Inc., Brooklyn, has introduced a 30-spout, fully automatic liquid filler. Identified as Model 48 (30), this machine will fill glass or metal containers from fractional ounces to gallons with thin, viscous or foaming liquids. On actual test the company found this model filled 3-oz. containers at a rate of 250 per minute. The production range per minute, they claim, is 30 fractional oz., 180 pts. or 150 qts. Half gallons and gallons may be filled up to 45 per minute using every other spout. All figures are based on water. The machine permits quick change-over from one-sized container to an-

other. Installed at the Mennen Co. plant to fill their Skin Bracer and Baby Oil products in sprinkler-top glass containers, the standard model, R 48 (30), was used with a special selector built into the feed conveyor to space out the square-corner bottles for precision timing into the intake star.

NEW THERMOPLASTIC SHEET MATERIAL

Steiner Plastics Mfg. Co., Long Island City, N. Y., has available a thermoplastic material called Royalite, developed by the U. S. Rubber Co. This plastic, which is a special compound of styrene and butadiene, comes as a rigid or flexible sheet material in any opaque color. It can have a smooth surface or a grained finish simulating any type of leather, on one side or both. The material is easily formed, blown, vacuum drawn, cemented or machined; tooling is inexpensive. It is available in sheets up to 48 by 80 in. and in thicknesses from $^{1}/_{32}$ in. up.

ALUMINUM SEAL CRIMPER

Wheaton Glass Co., Millville, N. J., will feature its "Roto-Seal" crimping machine, together with other products, in their exhibit at the Packaging Show in Atlantic City next



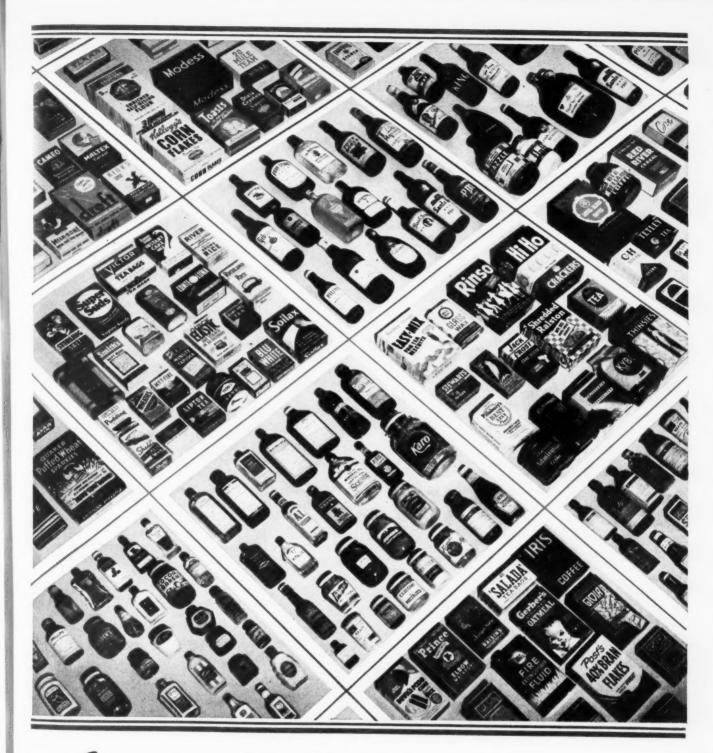
month. This hand-operated machine was developed for spinning aluminum seals on serum bottles and other biological closures for application in laboratories where production does not warrant large expenditure for a fully automatic crimping machine. It is readily adaptable, it is stated, to standard 11-, 13- and 20-mm. bottles of diameters from 1- to 100-cc. capacity.

VACUUMIZING AND SEALING MACHINE

The Cry-O-Vac machine for bagging and vacuum sealing poultry, meat, fish, etc., is now being manufactured and sold by the Package Machinery Co, East Longmeadow, Mass., for the Dewey & Almy Chemical Co., its originators. The machine takes a bag made of a specially developed Dewey & Almy film, in which the product has been placed, removes the air and heat seals it. (See "New Cry-O-Vac," Modern Packaging, March, 1948, page 115.)

SHEET FED ROTOGRAVURE PRESS

Stoessel Machine Mfg. Co., Inc., New York, announces its sheet-fed gravure press in sizes from 14 by 19 in. to 34 by 42 in., designed to print from copper sheets and said to be especially adaptable for printing carton blanks. It will also handle metallic papers, as well as printing on acetate material, using acetate inks. Positive register guides assure perfect



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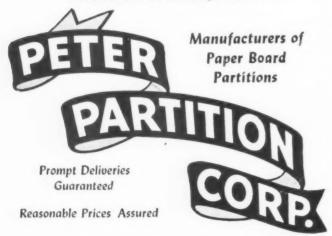
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19-21 HEYWARD ST. BROOKLYN 11, N. Y. Telephone: TRiangle 5-4033

Equipment and Materials

(Continued)

register on any number of color impressions, the company claims. The press is also made to accommodate solid cylinders and can be made for hand or automatic feed. When automatic, it is reported, the press can attain a speed in excess of 5,000 impressions per hour.

POWDER-FILLING MACHINE

Recent development of the Simmons Machine Tool Corp., Albany, N. Y., is a powder-filling machine for accurately measuring chemical, pharmaceutical or other powders in any



quantity from 0.01 cc. to over 7 cc. and automatically dispensing the amount into ampuls or small bottles at strokes from 11 to 22 per minute. By contrast, output using precision weighing methods is about two per minute, the company claims.

POLYETHYLENE FILM IN ROLL FORM

E. I. Du Pont de Nemours & Co., Inc., Wilmington, Del., announces that its Cellophane Division is now manufacturing and shipping polyethylene film, which is available in roll form up to approximately 56 in. wide and in gauges from 0.0015 to 0.004 in. This is said to be a commercially transparent type, with the special features that it is essentially static-free and very uniform in gauge. Gauge is guaranteed within plus or minus 5%. It is not available in colors or in tubular form. Price is 80 to 85 cents a 1b., depending on gauge. All rolls are slit to order in $^{1}/_{16}$ -in. multiples on standard 3-in. i.d. cores. The minimum order is 25 lbs.

PORTABLE VACUUM FILLING UNIT

Scientific Filter Co., New York, has a portable vacuum filler which handles liquids of varying densities, filling them into containers ranging from vials to jugs, providing high produc-



tion economically. Ready to operate on arrival, the unit draws liquids from a drum or barrel. It does not require overhead storage tanks and may be bench mounted. A suction line connects to a spout filling head from the

source of supply. Production is approximately 50 to 150 gross per day, varying with liquid viscosity and container size.

VERSATILE NAILING MACHINE

Shipping crates, pallets and other large wooden assemblies can now be made with production-line efficiency by the new commercial nailing machine of the Food Machinery & Chemical Corp., Riverside, Calif. The design of this 24-nail drive, flat nailing and clinching machine is said to meet many exact wood-fabricating requirements. One of these machines is





SPOT ANNOUNCEMENTS - for eyes!

• Colorful *lithographed* closures are part of your advertising program. They stop eyes . . . tell a quick version of your sales story right at the point of purchase.

This billboard space is free. It's on every metal closure you buy.

Use it to plug a trade name...encourage new product uses . . . new recipes . . . other items in your line.

Owens-Illinois design-engineers will be glad to suggest eye-catching *lithographed* designs that will give your package extra selling force... boost its impulse appeal ... keep selling in the home. You'll be pleased with the low unit cost of O-I lithographed closures. Full range of sizes, styles and colors. Prompt service.

CLOSURE DIVISION - OWENS-ILLINOIS GLASS COMPANY

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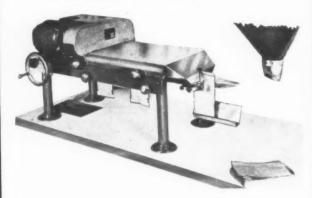
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CONTINUOUS Adjustable BAG SEALER

for Double-Folding and Heat Sealing



The FRY BAG SEALER is a complete FOLDING and HEAT-SEALING machine operating on a CONTIN-UOUS principle, the filled bags being carried through the heating and folding assembly, and then com-pressed between the final pressure rollers.

Bags may be fed into the unit automatically, semiautomatically, or by hand, depending upon the type of bags being sealed, the contents, and the desired speed of operation.

The FRY BAG SEALER is especially adaptable to the packaging of such products as: COFFEE, POTATO CHIPS, POP CORN, PIE and CAKE MIXES, CANDY, SOUP MIXES, COCOA, DRIED FRUITS, CHEMICALS and many other materials.

Specifications

- SAFE—all moving parts are covered
- HEAT-SEALS—folds and heat-seals variety of bags and materials such as: thermoplastic top kraft, foil, wax, glassine and parchment; diaphane, cellophane, pliofilm lined. Small and large sizes.
- BELT-SPEED—Adjustable from 300 to 1100 lineal inches per minute.

 TEMPERATURE—Adjustable from 100 to 500 degrees, controlled by
- dial type capillary tube thermosynitch.

 SEALING PRESSURE—Adjustable, minimum to maximum by finger knob.

 HEATING and—Single or double folder combined with heating assembly for efficiency at high speeds. Either left or right hand fold. Standard folder, ½". Other sizes %" to %4" available.
- CONSTRUCTION—Heavy duty design. Reduction unit with roller bearings and double oil seals. All moving parts are ball or oilite bearings.
- INSTALLATION Over filling line conveyor or at packing table. Speed synchronized to conveyor within limits specified.
 ADJUSTABLE Adjustable post assembly on floor model (optional) to permit fast changing between bags. Post length to suit
- OTHER—Motor 14 h.o. 110 volt 60 cycle, A.C., Size and weight, table model—18 x 35—163 lbs. Floor model 18 x 41—215 lbs.

Write Today

GEORGE H. FRY COMPANY

167 Front Street New York 7, N. Y. Bowling Green 9-4497

Equipment and Materials

(Continued)

used at the Fullerton, Calif., plant of the Mississippi Glass Co. for making sheet-glass shipping crates in various sizes. The machine can be quickly changed from one operation to another. It is designed to drive up to 24 nails in practically any nailing pattern and to operate at 120 strokes per minute.

STOCK BOX BECOMES SPECIAL GIFT CONTAINER

Weinman Bros., Inc., Chicago, has developed a new idea for transparent stock boxes with covers suitable for all gift presentation purposes. The covers have a transparent pocket



affixed under the cover, around which is stamped an attractive border design. As shown at left, a special holiday greeting card, with a personal message, may be inserted in the pocket to accompany the gift, becoming an integral part of the package.

WRAPPING MATERIAL

Mid-States Gummed Paper Co., Chicago, has developed a new improved Grade "A" packaging and wrapping material which fully meets Joint Army-Navy Specification JAN-B-121 for greaseproofness and uniform basic weight. A feature of the product is its heat-sealing property.

CODING AND DATING DEVICE

Industrial Marking Equipment Co., New York, has built an attachment for a Package Machinery Co. cellophane wrapping FA machine to code or date the bottom of boxes, trays, etc., prior to their being wrapped in cellophane. The printing wheel is synchronized with the chain driven on the FA model through a simple sprocket.

PORTABLE AIR COMPRESSOR

Anderson Bros. Mfg. Co., Rockford, Ill., recently introduced several machines that require the use of compressed air and now are offering a low-priced, portable air compressor to meet the demand for this type of unit in plants not already equipped with compressed air.

NEW VALVE BAG

The Shur-Close valve bag, a development of Arkell & Smiths, Canajoharie, N. Y., is said to provide increased efficiency in filling by not only permitting a faster flow of material, but also preventing sifting. The makers report the valve is adaptable to multiwall bags of any number of plies and may be filled on all standard filling machines.

CASE-LO DING MACHINE

Designed to eliminate rough handling of containers at high speeds, the Sprague-Sells Div. of Food Machinery & Chemical Corp., Hoopeston, Ill., announces the development of a new type of case-loading machine. This non-shock, high-speed caser carries all types and shapes of containers on end, standing upright. The company claims glass containers or flat-



Ritchie's 83 years of know how has made Ritchie "packaging headquarters" for users of top quality set-up paper boxes, transparent packages and fibre cans. So

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talk to Ritchie the next time you consider a source of supply. Ritchie men know packages. They can help you at every step-from developing a standout package design to delivery of packages in quantity and on schedule.



Many of America's best known products come in packages designed by

Ritchie. If you seek a package that will better identify your product-an eyecatching, eye-appealing, selling package one that will win jobber and dealer enthusiasm-Ritchie can supply you with that kind of package in any quantity.



Ritchie-made packages are practicalplanned for production at low unit cost. Constructed to protect and/or conveniently dispense your product. Easy to fill or pack - to handle, stack and display. In short, a BETTER PACKAGE.



With specially designed, high speed labor-saving equipment-Ritchie functions as an arm of your own production line-delivers your package requirements, ON SCHEDULE-even during your seasonal peaks. (Ritchie's annual package capacity over a billion units.)

Talk to a Ritchie Man - always at your service. Or send us your present package for suggestions. No obligation. Booklet, "5 Essentials of a Selling Package" mailed on request.



Packaging for the Leaders since 1866 DETROIT

LOS ANGELES

ST. LOUIS

PROVIDENCE . CLEVELAND . CHARLOTTE . JACKSONVILLE . DALLAS



Picturesque, indeed, is the Hot Tamale Man with his hot tamales wrapped in real corn husks. But when tamales are produced by the millions, the corn husk must bow to a cheaper, more dependable wrap . . . such as a fine Rhinelander paper made for this purpose.



Now these clever food processors not only package you a cake ready to bake but also a perfect frosting. They take the exertion and guesswork out of the procedure. And Rhinelander G & G* Task Papers take the guesswork out of the packaging!



Comic buttons and various other small fry allure enclosed with cereal and confections boost sales enormously. Heat sealed packets made from a special Rhinelander paper separate these coveted little premiums from the products they so effectively sell.

*Glassine and Greaseproof—the functional papers that do so many tough jobs well.



Equipment and Materials

(Continued)

sided packages can be handled at the same speeds and with equal safety as cans. It is fully automatic in operation.

EDGING MACHINE

Globe Mfg. Co., Philadelphia, is offering its edging machine for fast, clean stripping of partitions, trays, candy boats, collars, necks, etc. This machine will handle board 1 to 6 in.



wide. Equipped with two scoring blades and an automatic cut-off knife, this Globe edging machine binds each edge separately or bottom side only, the tape being folded over top surface of board. Speed of delivery is 40 to 50 feet per minute.

POLYETHYLENE COATED PAPERS

Milprint, Inc., Milwaukee, Wis., at their new Stoughton coating plant, are producing papers and fabrics coated with polyethylene and vinyl-organosol in widths up to 72 in.

SATIN PRESSURE-SENSITIVE RIBBON

A new type of ribbon for the florist trade, made of adhesive-backed satin, is available from Freydberg Bros.-Strauss, Inc., New York. Known as "Mermaid," this ribbon combines the decorative qualities of lustrous satin with convenience in use, making it ideal for stemming.

MATERIALS HANDLING EQUIPMENT

The #101 line of Slider Bed belt-type conveyors of the Coburn-Foster Conveyor Co., Inc., Chicago, which have been sold in that area for some time, are now ready for national marketing, the company announces. This line is a streamlined type of conveyor made of interchangeable parts. These are punched and marked, shipped in knocked-down condition, for erection by dealers or customers according to accompanying engineered erection drawings.

STATIC ELIMINATOR

To eliminate the static nuisance in the handling of paper, Pliofilm, polystyrene, acetate and other sheetings, the Gibbs Mfg. & Research Corp., Janesville, Wis., has introduced its Alphatron static eliminator.

BONDS PLIOFILM TO PAPERBOARD

Converters fabricating transparent packages for pre-packaged produce will be interested in Resyn Adhesive 3626 by National Adhesives, New York, said to successfully bond Pliofilm to paperboard. It is an emulsion-type product, white in color, which dries to a transparent film.

VIBRATING SCREENS

Syntron Co., Homer City, Pa., has a new line of vibrating screens for rough sizing which are made with stepped, punched plates, having tapered elongated openings, the size of the latter depending upon material specifications.



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GING

A CASE TO LOOK INTO

A THING OF BEAUTY and lasting satisfaction—this sparkling new display container. The base is polished wood; the cover, drawn from tough, optically clear Kodapak I Sheet, invites inspection, helps increase the salability of the merchandise within. What's more, thanks to its unexcelled chemical stability, Kodapak Sheet retains its sparkling transparency indefinitely.

Kodapak Sheet comes in two basic forms: Kodapak I Sheet, cellulose acetate, gauges up to 0.020"; Kodapak II Sheet, cellulose acetate butyrate, gauges up to 0.002". Made, side by side, on the same type of machines, to the same high standards as Kodak photographic film base.

To learn more about Kodapak Sheet, its fabrication and end uses, you are invited to write for further information, consult your nearest representative, or visit Kodapak Demonstration Laboratory in Rochester.

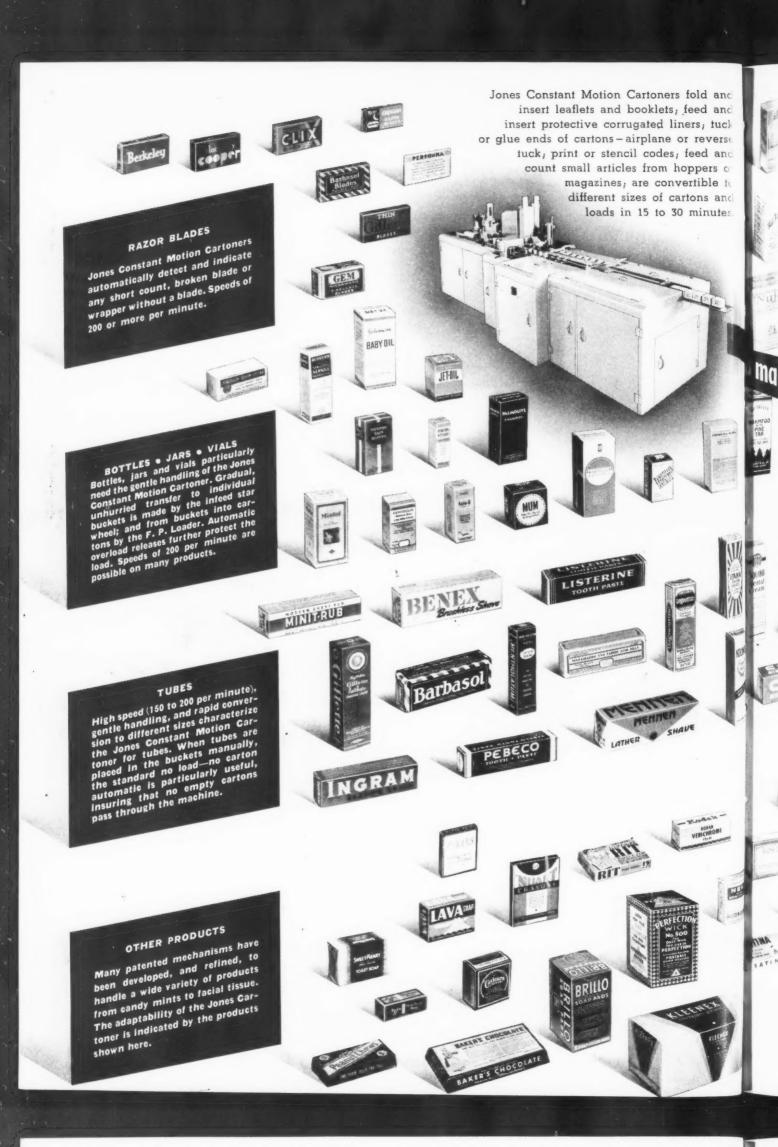
Cellulose Products Division Eastman Kodak Company Rochester 4, N. Y.

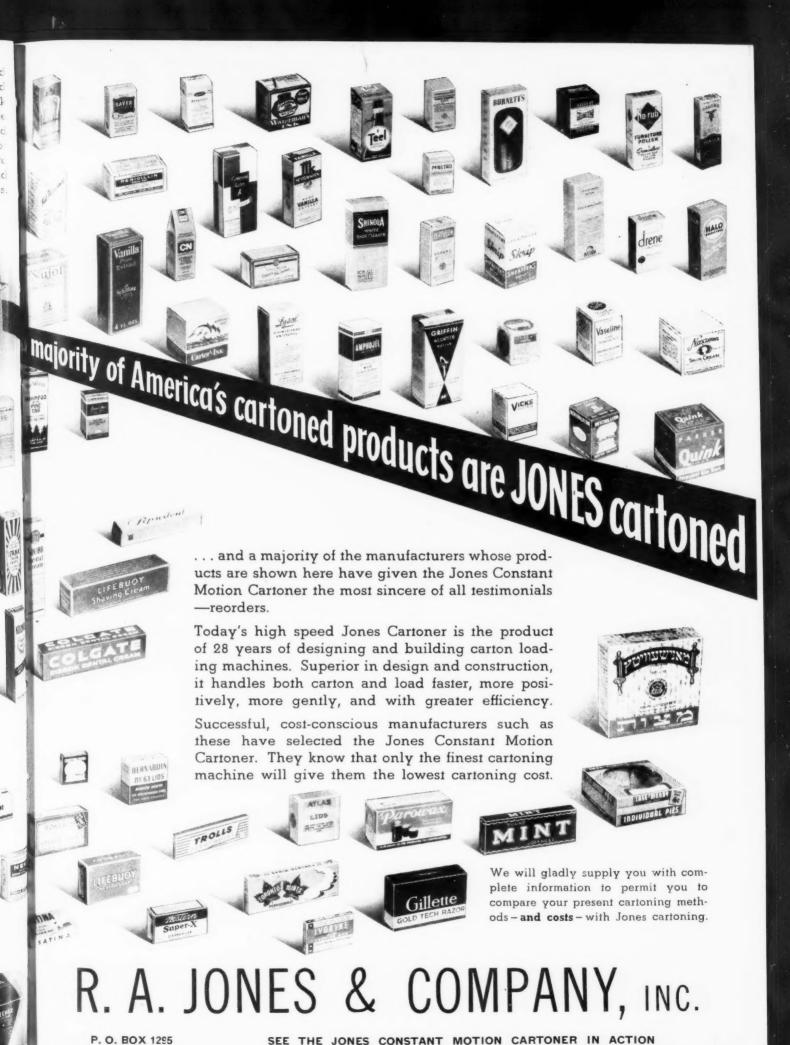
FOR THE DISPLAY YOU WANT... THE PROTECTION YOU NEED

"KODAPAK" IS A TRADE-MARK

Kodapak Sheet

Kodak





BOOTH 519, 1949 NATIONAL PACKAGING EXPOSITION

CINCINNATI, CHIO



Plants and People

Maynard G. Fessenden, treasurer of the Ace Carton Corp. of Chicago, was elected president of the Folding Paper Box Assn. of America at their annual meeting in Chicago on March 24. He succeeds Ralph Powers of

Robertson Paper Box Co., Inc.



M. G. Fessenden

Milprint, Inc., this year celebrates its 50th Anniversary and points with pride to its record of achievement in its half century of growth. Milprint claims to be the "oldest and largest producer in the converting field" and the "first to develop a satisfactory method of printing on cellophane." Still active in Milprint affairs are M. T.

Heller, now chairman of the board, and William Heller, president, the brothers who founded the firm in Milwaukee, Wis., Milprint's home office and main plant. There are 13 plants in various sections of the country, three of which are devoted solely to printed cellophane and glassine bags.

Union Bag & Paper Corp., New York, has announced the following changes in its sales organization: S. K. Bradley, former director of chain store sales, is now Eastern district manager of multiwall sales. He is succeeded by E. M. Rickel, former assistant director of flexible packaging sales. R. B. Bennett has been named to the newly created post of district manager of flexible packaging sales and will direct the department's field representatives. R. C. Shannon becomes assistant to the director of flexible packaging sales. W. F. Jacobi has been named head of marketing research and development in flexible packaging sales. J. P. Schwede has joined the sales staff as assistant director of export sales, while Charles Bond and Ryan Loftus are now with the New England States sales staff.

W. A. Radford, 509 Fifth Ave., New York City, has been appointed as New York representative for the A. H. Ross Co., Inc., Dayton, Ohio.

Economic Machinery Co., Worcester, Mass., has moved its New York City sales headquarters to 41 E. 50th St. William G. Malm will continue in charge of the company's New York sales operations, assisted by Donald Sisson and James Maloney.

George R. Langlois, formerly general sales manager and

Is Your name on the list?

The Buyers' Directory Section for the 1950 Modern Packaging Encyclopedia is now being compiled. If your company manufactures packaging materials, supplies, containers, machinery or equipment, or performs specialized packaging services, you may apply for an Official Listing Sheet, if you have not already received one. There is no charge for this listing service. The deadline has been extended from April 11 to April 25.

vice president in charge of sales for the Muirson Label Co., Inc., Brooklyn, is now executive vice president of the company. His headquarters will be in San Jose, Calif.

The Wallace Paper Box Corp., maker of set-up paper boxes, New York, has announced the appointment of Robert Wilson Proom as sales representative.

Palmer, Fechteler & Co., decalcomania manufacturers, New York, have announced the appointment of **Don W.** Armstrong as their Chicago representative and **Charles M.** Hopkins as representative for the company in the State of Michigan, with offices in Lansing.

The Wheaton Glass Co., Millville, N. J., manufacturers of glassware for the drug and cosmetic industry, have announced that Maxson A. Eddy is now associated with



M. A. Eddy

them in an executive capacity. Mr. Eddy was formerly vice president and general manager of the Kimble Glass Co. and, after that company was absorbed by Owens-Illinois Glass Co., a vice president of Owens-Illinois.

Packer Machinery Corp., New York, has appointed the following companies as sales representatives for all Packer liquid filling equipment: for the West Coast, King

Sales & Engineering Co., San Francisco; for the Southeastern States, Ned Doucher & Son, Atlanta, Ga.

Barnes & Reinecke, Inc., Chicago, have announced the recapitalization of the design and engineering firm and the appointment of Thomas W. Alder as executive vice president and treasurer.

The New York City Eastern Sales Office of **Cochran Foil Co.,** Louisville, Ky., has been moved to 500 Fifth Ave. New telephone is Bryant 9-8418.

Announcement has been made of a change in name of the Johnston Tin Foil & Metal Co. of St. Louis, Mo., to Johnston Foil Mfg. Co.

The Lea Tek Studios have moved from their Chicago quarters to Forest Lake, Illinois. Mailing address for the new offices is P. O. Box L. T., Lake Zurich.

Packaging Products, Inc., Kansas City, Mo., announce the expansion of their facilities to include the manufacture of printed, embossed, die-cut labels, seals and headers, and multicolor printing of sheets, wraps, rolls and bags.

The following organization changes have been announced by the **D. L. Ward Co.** of Philadelphia: **John D. Williams,** vice president in charge of sales, continues to direct sales activities, while **Albert Struble** will manage sales in the Coarse Paper Division.

Two changes in the Market Development Dept. of Owens-Illinois Glass Co. have been announced. Newell A. Pontet, the department's district manager for the Western area of the Glass Container Division, is being transferred to the

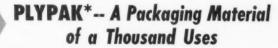
AP

SHOCK-PROOF SHIPPING BOX

You can't take chances in shipping delicate, precision equipment. If such equipment is damaged in transit, your customer will probably look elsewhere the next time he places an order. Whatever your product, the H & D Package Laboratory can work out a safe, dependable, economical packaging method that will protect your goodwill . . . and your profits!

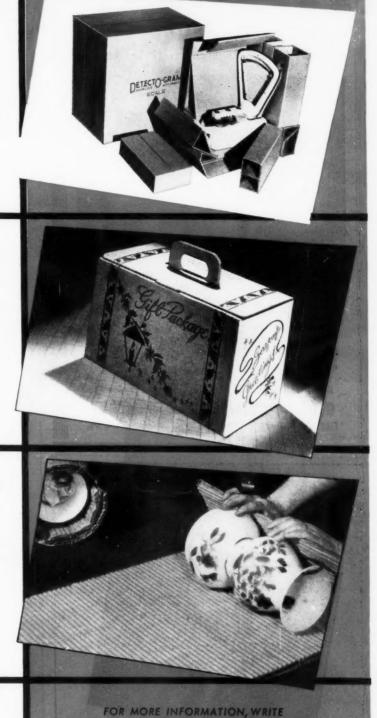


Promotion of seasonal merchandise is but one of many successful applications of the H & D luggage box. Use it to add extra value to your product, to win extra sales appeal. It makes your product easier to carry, easier to use. Your dealers will endorse it—because it displays well, simplifies the selling job, reduces selling costs, eliminates repacking and wrapping.



PLYPAK* is a corrugated packing material that combines several thicknesses of corrugated paper to form a protective "blanket" which is ideal for packaging fragile merchandise. Clean and easy to handle, PLYPAK* is simply "wrapped" around a product, gives it a soft, close-fitting cushion that defies shock. Ask for sample.

*REG. U. S. PAT. OFF.





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Authority on Packaging

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Baltimore 13, Md. * Buffalo 6, N. Y. * Chatham, Ontario Chicago 32, Illinois * Cleveland 2, Ohio * Detroit 27, Mich. * Gloucester, N. J. * Hoboken, N. J. * Kansas City 19, Kansas * Lenoir, N. C. * Montreal, Quebec Richmond 12, Va. * St. Louis 15, Mo. * Sandusky, Ohic Toronto, Ontario * Watertown, Mass.

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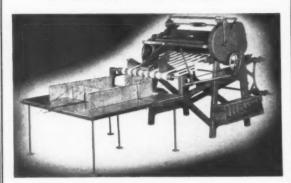
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GLOBE AUTOMATIC SHEET CUTTING MACHINE

Cuts, Decurls, Stacks, Counts
60 SHEETS PER MINUTE



- \bullet Two models. 36" and 45"—36" cuts lengths from 14" to 40". 45" cuts lengths from 14" to 60"
- Easy to adjust length being cut.
- Peak Production—Single Roll—60 sheets per minute. Equipped to handle 2 Rolls at once—120 sheets per minute.
- Completely guarded gears, semi-steel frame castings, precision bearings, large hi-speed knife blade.
- Low in cost, inexpensive to operate and maintain.

Write today for full information and details

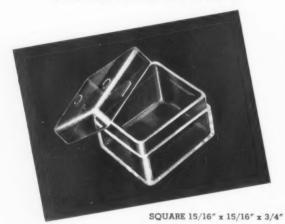
GLOBE MANUFACTURING COMPANY

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Frankford, Philadelphia 24, Pa.

THE IDEAL SOLUTION

TO YOUR PROBLEM OF PACKING
—AND STORING—OF SMALL PARTS



- Glass-clear, unbreakable plastic material.
- Immediate and complete visibility of contents.
- Tight-fitting cover insures freedom from moisture and dust.
- Cube-shape facilitates attractive packaging designs; permits efficient storage arrangements.
- Name or trade-mark imprints will add sales-value.
- For all industries that handle small parts.

Manufactured exclusively for:

METROPOLITAN WATCH MATERIAL IMPORTING CO.

200 West 72nd Street

NEW YORK 23, N. Y.

Plants and People

Continued

Dallas branch, where he will cover the Southern and Southwestern territory. He will be succeeded in Chicago by George Deppman, formerly in Toledo.

R. F. V. Stanton, vice president in charge of manufacturing of American Machine & Foundry Co., New York, has been

elected a member of the company's board of directors.



R.F. V. Stanton

The following officers were elected at the recent annual meeting of Stein, Hall & Co., Inc., New York: Edwin Stein, chairman of the board; Morris S. Rosenthal, president and director; Robert Rau, treasurer, secretary and director; Oliver H. Clapp, Cecil H. Coryat, Lawrence Guss-

man, Robert M. Stein and Robert Strasser, vice presidents and directors; Arthur L. Strasser, director; J. Rex Adams, J. Chesman Daly, Samuel Hochberger, J. P. Strasser and W. W. Strasser, Jr., vice presidents.

States D. Tompkins is now handling foil cartons and laminated materials sales for United Board & Carton Corp. in New York, while Leeds Mitchell, Jr., performs the same functions in the company's Chicago office.

The Sylvania Division American Viscose Corp. Fellowship for the study of cellulose chemistry at McGill University has been awarded to **George B. Creamer** of Syracuse, N. Y.

Robert H. Askren has been appointed business director for Robert Sidney Dickens & Associates, Chicago design firm.

Mr. Askren was formerly packaging director of Raymond Loewy & Associates.



R. H. Askren

Bemis Bro. Bag Co., St. Louis, Mo., has announced the election of Howard P. Claussen, vice president in charge of the Cotton Dept., to membership on the board of directors. Charles W. Loomis, director of personnel, has been elected a vice president. Recent promotions an-

nounced by Bemis include the appointment of **Harold R.**Cuthbert as office manager at the Houston plant and Lunsford E. Cox as assistant plant manager at Kansas City.

Archer Label Co. of Pasadena, Calif., recently moved its plant to new and larger quarters at 97 W. Union St.

Celanese Corp. of America, New York, has announced the appointment of William M. Porter to the newly created post of assistant general sales manager of the Plastics Division. John J. Keville has been named director of sales of the sheet department. Edward H. Miller is now

CORRECTION—The Crescent Ink & Color Co. was incorrectly identified on p. 152 of the January issue as having a plant in Camden, N. J. The company is still located in Philadelphia, as it has been for 30 years.

Don't

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Take the Sead at the Point of Sale

Don't miss the exciting Chaspec Exhibit in Booth 113, AMA Packaging Exposition, Atlantic City, May 10th to 13th.

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LOOK TO LUSTEROID

Lusteroid vials and tubes have unusual qualities which make them ideal for special packaging requirements.

Fabricated from feather-light plastic, Lusteroid containers are strong, rigid unbreakable—perfect for packaging heavy solid objects to keep from damaging each other, as well as protecting the most fragile products. These qualities eliminate the expense of protective partitioning and packing for shipment.

Lusteroid can be fabricated in a variety of shapes, sizes and colors to meet the need for special-purpose containers. Puffers, squirters, conical tubes, very thin walls, elliptical and other cross sections can be developed for individual requirements.

It will pay you to submit your special packaging problems to Lusteroid. Write for details or send specifications for quotation.



Plants and People

director of sales for the molding materials department. James T. Growley has been named New York district sales manager and Charles H. Edgar has taken over the duties of Robert C. Cory, who has retired.

Alford Cartons, Ridgefield Park, N. J., has announced the appointment of Edward J. Torpey as vice president and assistant to the president. Frank C. Williams has been





named sales manager. Alford Cartons, manufacturer of folding cartons, is a division of Continental Paper Co.

E. J. Torpey F. C. Williams

Thomas West and Howard Winters, formerly of the sales staff of the Dewey & Almy Chemical Co., have

formed West & Winters Products, Inc., to promote the sale and use of the Cry-O-Vac process and other products in Minnesota, Wisconsin, North and South Dakota and the northern section of Iowa. With offices established in the Pence Bldg., Minneapolis, Minn., the new organization will work with paper wholesalers.

John F. Devine has been elected a vice president of the Sun Chemical Corp. He will serve as an aide to the general managers of all the firms' divisions with respect to sales and continue to supervise the operation of Sun's General Printing Ink Co.'s Pacific Coast Division.

The Graphic Arts Group of Sun Chemical Corp., which is comprised of their printing ink and machinery divisions, has moved from 100 Sixth Ave., New York City, to the Sun Chemical Bldg., Long Island City, N. Y.

Harvey K. Pringer has been appointed assistant to Richard H. Schnoor, sales manager of the Roto Bag Machine Corp., New York.

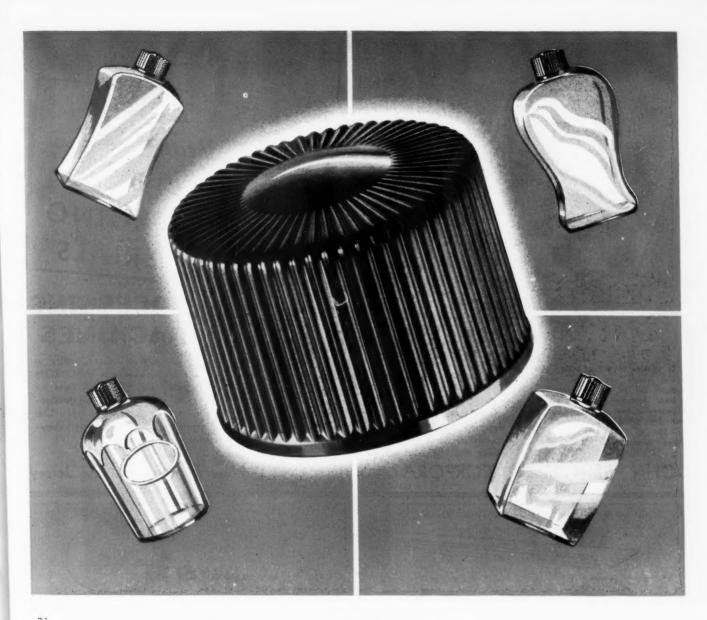
William Thomas has been named technical advisor in research and development for W. Ralston & Co., waterproof paper manufacturers, Old Bridge, N. J.

Dr. Edward L. Kropa has joined the **Borden Co.**'s Chemical Division as chemical director, succeeding **Dr. John F. Corwin.** Dr. Kropa, who will be in charge of research and chemical operations, was formerly with the American Cyanamid Co. as head of research on resins and plastics.

The Gates Paper Co., Ltd., Los Angeles, manufacturer of spiral-wound cores, paper and composite metal-end cans, was recently acquired by E. H. Southwell. Mr. Southwell also owns the Containers Service Co., a manufacturers' representative and distributing firm in the Western area.

Charles G. Price, for the past 11 years purchasing agent for Armstrong Cork Co., Lancaster, Pa., died on March 2.

Dr. Berthold Kaufmann, chairman of the board and president of Kupfer Bros. Co., makers of coated and embossed paper, New York, died on March 11, after a long illness.



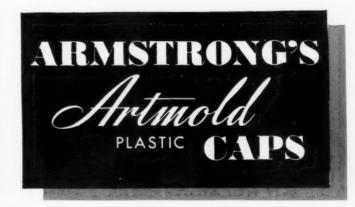
Private design quality at standard design cost

If you want to give your package a distinctive, individual appearance at no increase in cost, consider this versatile Armstrong's K-design standard molded cap. As shown in the illustration, it is adaptable for use on almost any shape container, yet it imparts a quality appearance to each package.

a quality appearance to each package.

This new K-design cap has all the advantages of molded caps. It is finished to a high luster—won't fade. It won't chip or crack. It's non-corrosive. It is made in all standard sizes to fit standard containers. And it provides you with Private Design individuality at standard design cost.

If you would like to see how this K-design cap will enhance the appearance of your package, write for samples, prices, and further information. Address Armstrong Cork Company, Glass and Closure Division, 5904 Prince Street, Lancaster, Pennsylvania. Available for export sales.



WEST COAST REPRESENTATIVE: I. F. SCHNIER CO., INC., SAN FRANCISCO 7 AND LOS ANGELES 12

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In addition to adding beauty of color, texture and design, your material can be coated, gummed, waxed, lacquered, greaseproofed, waterproofed, heat sealed, reinforced and given similar characteristics with WALDRON Machines. Consult us on your problem.

Today, almost any characteristic can be imparted to your packaging paper by the modern processing methods made possible with WALDRON machines. Through the use of one or more of the typical machine designs illustrated, the most prominent manufacturers of packaging materials are giving their products greater sales appeal

by adding features of beauty, utility or both. With the wide range of WALDRON equipment available, the possibilities for improving your present products or developing a new one are almost limitless. Our Development Engineers and Testing Laboratory facilities are at your service.

JOHN WALDRON CO

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New Brunswick, New Jersey



*NEOROTO . . . LACQUER TYPE INKS

Ideal for plain and moisture proof cellophane. Also excellent for glassine, foil, paper.

*MIROTO...NAPHTHA THINNED INKS

Low priced . . . for fancy papers. *Reg. U. S. Pat. Off.

*ZYROTO . . . TOLUOL AND XYLOL INKS

Fast drying and economical.

*SPIROTO . . . ALCOHOL BASE INKS

Will not attack rubber . . . mild odor.

GOTHAM INK & COLOR CO.

Established in 1937

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Long Island City 1, N.Y.

Write for our pamphlet "ROTOGRAVURE PRINTING"



G. Matthews Baxter

CONSOLIDATED LITHO

FOR GETTING SEMI-PERMANENT

STORES!

Floor display in food stores can be secured—and retained for long periods of time—if the basic plan is sound. This McCormick Tea floor stand achieved wide placement in big city stores along the East Coast. It also stayed in service through a change in seasons because dealers were supplied at intervals with timely replacements for the stand's removable illustration card. The iced tea card shown here was used last summer. A colorful series of hot tea signs, distributed for use during the spring months of '48, preceded it.

This floor stand was developed in collaboration with G. Matthews Baxter, Director of Advertising at McCormick & Company. It served McCormick long and well. Another product of McCormick's unique system of Multiple Management, it was a key unit in a carefully thought-out, closely integrated promotion plan. Even the captions and illustrations used on the floor stand's removable display cards duplicated those featured in the newspaper advertising running at the stores were enthusiastic about this promotion and kept a direct result, everybody concerned sold a lot of tea.

Gottoo can make your display dollars work harder, provide display aids that earn a higher rate of dealer acceptance and longer terms in use. To find out how easy it is to correlate point of sale, advertising and selling efforts, consult "the Man from Consolidated."

CONSOLIDATED LITHOGRAPHING CORP.

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SALES PROMOTION TECHNIQUES is the title of a provocative booklet we publish. For a copy of the latest issue, write our Dept. M-3

We invite you to visit our exhibit (Booth No. 418) at the Packaging Exposition in Atlantic City, May 10 to May 13, 1949.



For Your Information

New president of the **Textile Bag Mfrs. Assn.**, elected at the association's recent annual meeting in New Orleans, is **Homer V. Howes**, vice president and director of sales of Bemis Bro. Bag Co. **Norman E. Elsas**, president of Fulton Bag & Cotton Mills, was elected vice president. The retiring president of the association, **F. H. Ludington**, who is president of Chase Bag Co., will remain active in the association as a member of the executive committee.

The Glass Container Mfrs. Institute recently published the first edition of its new marketing trade paper, "Glass Container News." Scheduled to be issued monthly, it will have a free circulation of 27,000 covering the fields of brewers, beverage distributors, food retailers, trade associations, advertising agencies and trade papers. Early editions of the publication, according to Benjamin Wood, marketing director for the Institute, will be devoted exclusively to marketing news about the one-way, no-deposit glass bottle. The publication will reprint newsworthy advertisements of the glass and brewing industries, but will accept no paid advertising.

What's doing

Apr. 25–29—National Fisheries Institute, Inc., Edgewater Beach Hotel, Chicago, Ill.

May 2-4—Forest Products Research Society, 3rd annual meeting and exhibit, Civic Auditorium, Grand Rapids, Mich.

May 5-6—American Society for Quality Control, 3rd annual convention, and Third New England Quality Control Conference, Copley Plaza, Boston.

May 8–12—Super Market Institute, 12th annual convention, Hotel Stevens, Chicago.

May 9—Packaging Machinery Mfrs. Institute, spring meeting, Hotel Dennis, Atlantic City, N. J.

May 10-13—American Management Assn. Packaging Show, Public Auditorium, Atlantic City, N. J.

May 11-13—Fibre Drum Mfrs. Assn., Atlantic City, N. J.

May 15-18—National Paper Box Mfrs. Assn., annual convention, Waldorf-Astoria, New York.

May 15-20—New York Stationery Show, Hotel New Yorker, New York.

May 17–18—**Food and Container Institute,** annual meeting, Navy Base, Norfolk, Va.

May 17-19—The Toilet Goods Assn., Waldorf-Astoria Hotel, New York.

May 29-June 3—U. S. Wholesale Grocers Assn., annual convention, St. Louis, Mo.

May 30-June 1—**Food Distribution Exposition,** St. Louis Auditorium, St. Louis, Mo.

The Wirebound Box Mfrs. Assn., at its recent annual meeting in New Orleans, re-elected D. R. Simmons of the Alberta Crate & Box Co. as president. John R. Miller of T. R. Miller Mill Co., Inc., is the new vice president. New members of the board are L. O. Crosby, Jr., S. D. Slaughter and Foster L. Martin.

The annual convention of **The Toilet Goods Assn.** will be held at the Waldorf-Astoria Hotel in New York City, May 17 to 19. **Karl Voss** of Karl Voss Corp. is chairman of the convention committee. Presentation of the Charles S. Welch Awards for Packaging, Merchandising and Advertising will highlight the opening day. Reservations should be mailed to A. R. Ludlow, Jr., Treasurer, 1100 Adams St., Hoboken, N. J.

Officers elected at the recent annual meeting of the Waterproof Paper Mfrs. Assn. are A. J. Thiel of the Angier Corp., president; Charles Wood of the Simplex Paper Corp., vice president; members of the board, H. A. Anderson of The Sisalkraft Co., G. W. Chadwick of W. Ralston & Co., Inc., G. E. McCorison of Thilmany Pulp & Paper Co., C. N. Campbell of National Waterproof Papers, Inc., S. A. Feely of Keystone Roofing Mfg. Co., D. F. Smith of Union Bag & Paper Corp. and L. R. Watson of Tuttle Press Co. The association adopted a four-year educational program and appointed a technical committee. A meeting is planned for June, when their reports will be acted upon.

The Society of Industrial Packaging and Materials Handling Engineers, National Professional Group, Chicago, has announced plans to move its Fourth Annual Industrial Packaging and Materials Handling Exposition, Oct. 4 to 7, from Chicago to Detroit. The Packaging and Materials Handling Institute, held in cooperation with Wayne University, will be repeated this year.

The organization of an Eastern Division of the Society, with headquarters in New York City, has just been completed. For the present, this division includes the states of New York, New Jersey, Connecticut, Pennsylvania, Massachusetts, Delaware and Vermont.

The third annual national meeting of the **Forest Products Research Society** will be held at the Civic Auditorium, Grand Rapids, Mich., May 2 to 4. Open to non-members as well as members, the meeting is scheduled for six technical sessions. An exhibit will be a feature of the meeting.

Three packaging and packing technologists have been added to the staff of the Quartermaster Food & Container Institute for the Armed Forces, Chicago: George E. Tripp, formerly with Wilson & Co. and the Visking Corp.; Thomas Conway, who was a packaging engineer for the Army Ordnance; Charles R. Joslin, former member of the WPB Container Coordinating Committee. Mr. Joslin has been detailed to the Philadelphia Quartermaster Depot.

A new sound-color motion picture, "A Stitch In Time," has been produced by the Packaging Service Dept. of



Opticlear Vials are as serviceable as they are attractive!

Again... OPTICLEAR VIALS chosen to keep penicillin product DRY

• Adopted this time by Abbott Laboratories . . . to inhibit the action of moisture upon their new penicillin powder inhalant. Moisture penetration is virtually impossible through the amazing seal of an Opticlear Vial . . . even after its resilient stopper has been

removed and replaced many times.

The lustrous Opticlear Vial is the ideal package for dry products which must be kept *dry*.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO

Division of Owens-Illinois Glass Company



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Waxed Paper, America's basic Protective Wrap ... Printable, Sanitary, Moistureproof ... Positive Protection at Low-cost.

Between layers in boxed candy... around suckers and on sticks of gum... on the outside of candybar cartons... here, and on countless other products, waxed paper is America's economical guardian of freshness and flavor. Waxed paper pays its way in protection!

WAXED PAPER INSTITUTE, INC.

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Chicago 3, Illinois

Albemarle Paper Manufacturing Co., Richmond, Va.; B.F.D. Division, Diamond Match Co., New York, N. Y.; Badger Paper Mills, Inc., Peshtigo, Wis.; Central Waxed Paper Co., Chicago, Ill.; Crystal Waxing Co., Middletown, Ohio; Dixie Wax Paper Co., Dallas, Tex. and Memphis, Tenn.; Hamilton Manufacturing Co., Inc., Richmond, Va.; Henle Wax Paper Manufacturing Co., Inc., New York, N. Y.; Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.; K. V. P. Co. of Texas, Houston, Tex.; Kuhmarker Waxed Paper Co., Inc., Brooklyn, N. Y.; Kalamazoo, Mich.; K. V. P. Co. of Texas, Houston, Tex.; Kuhmarker Waxed Paper Co., Inc., Brooklyn, N. Y.; Marathon Carp., Menosha, Wis.; Minerva Wax Paper Co., Minerva, Ohio; Nashua Gummed and Coated Paper Co., Nashua, N. H.; Newark Paraffine & Parchment Paper Co., Newark, N. J.; Pacific Waxed Paper Co., Seattle, Wash.; Rapinwax Paper Co., Minneapolis, Minn. and Chicago, Ill.; Riegel Paper Corp., New York, N. Y.; Saniwax Paper Co., Kalamazoo, Mich.; Scott Paper Co., Chester, Penn. and Hobaken, N. J.; Shawmut Waxed Paper Co., Holliston, Mass.; Smith, H. P. Paper Co., Chicago, Ill.; Southern Paper Co., Ltd., New Orteans, La.; Specialty Papers Co., Dayton, Ohio; Waxide Paper Co., Kansas City and St. Louis, Mo.; Western Waxed Paper Co., Los Angeles, Oakland, Cal. and N. Portland, Ore.; Zimmer Paper Products, Inc., Indianapolis, Ind.

For Your Information

Continued

Bemis Bro. Bag Co., St. Louis, Mo., as a supplement to the company's three teams of experts who conduct Sewing Machine Clinics at customer plants. The 16 mm. film is in two parts, with a projection time of about an hour. As soon as distribution problems are solved, Bemis plans to make the film available to industrial groups requesting it.

Frank Gianninoto, New York industrial designer, has been re-elected chairman of the New York Chapter of the American Designers' Institute. Other elected officers are Scott Wilson, vice president; Paul Wrablica, treasurer; Robert Goldberg, secretary; Belle Kogan, Frank Gianninoto and John Vassos, board members.

Success of the first course in package design offered by the School of the Art Institute of Chicago this past fall has prompted its continuance. The course is conducted by Walter Stern of Barnes & Reinecke, Inc., Chicago. Those interested should contact the school's registration office.

Flock Embossing Corp., 598 Broadway, New York, has available a handy new sample book for its line of rayon velour papers, available on request to the company and through authorized distributors and jobbers.

Typographers and letterers will be interested in the new book, "Lettering," published by **Higgins Ink Co., Inc.,** 271 Ninth St., Brooklyn, which replaces their former book, "Script and Manuscript." The book is price at \$1.

Users of steel strapping will find the new Strap Calculator offered by **A. J. Gerrard & Co.** an effective means of saving time and preventing miscalculations. The Calculator enables the user to determine the length and weight of strapping required for any given binding operation. Its reverse side is an anti-corrosion strap selector. The Calculator may be obtained without charge from the Gerrard company, 1950 N. Hawthorne, Melrose Park, Ill.

Bakers will be interested in a new booklet available from the **American Machine & Foundry Co.** explaining the steps needed in producing the duplex bread package. Request copies of folder DM-559 from the company's Bakery Division, 485 Fifth Ave., New York.

Pyroxylin Products, Inc., 4851 S. St. Louis Ave., Chicago, has just published two pamphlets, available on request to the company. One is a source list of converters of Proxseal heat-sealing bags, tubes, envelopes and pouches, as well as suppliers of machinery for heat sealing them. The other lists converters of Proxseal labels, tags, wrappers, etc., together with heat-sealing machinery suppliers.

The new eighth edition of **Tennessee Eastman Corp.'s** book, "Eastman Cellulose Esters," is now available upon request to the firm at Kingsport, Tenn.

Scientific principles involved in the use of color are discussed in the publication, "How to Use Color," the fourth in the **Hinde & Dauch Paper Co.**'s Little Packaging Library series. Requests for copies should be addressed to the company at Sandusky, Ohio.



FEATHERS MAKE THE BIRD

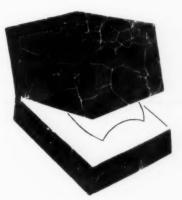


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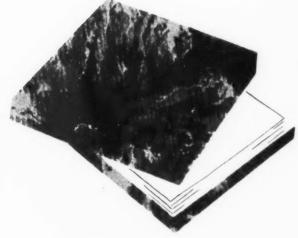
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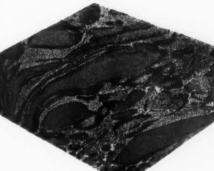
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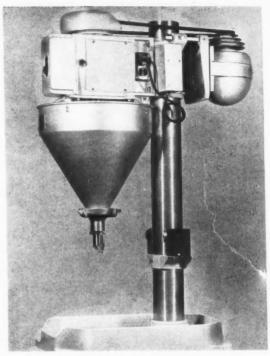
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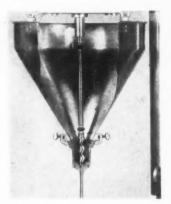
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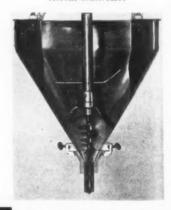
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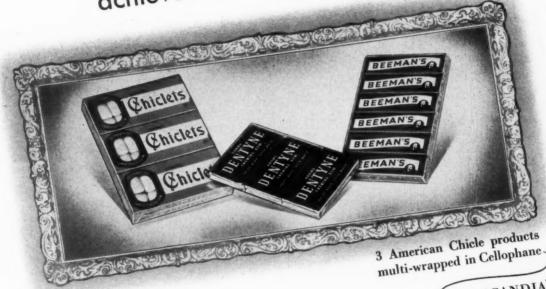
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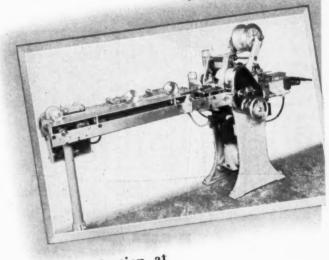
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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U.S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Box Dumping Machine, F. A. Van Vleck (to Food Machinery & Chemical Corp., a corporation of Delaware). U. S. 2,459,204, Jan. 18. A box dumping machine comprising an upstanding frame, an elevator on frame adapted to engage and elevate a stack of loaded, open-topped boxes, a box gripping, rocking head unit mounted on frame for oscillating movement between a starting point to receive and grip the top box of each stack.

Flame Sealing Apparatus, R. McDowall (to The Visking Corp., Chicago, Ill.). U.S. 2,459,234, Jan. 18. An apparatus for flame sealing thin-walled thermoplastic tubing, which comprises a rotary drum conveyer having cleats in spaced relationship circumferentially thereof, against which tubing is disposed, a guide to position tubing transversely of drum and expose its sealing end a predetermined distance beyond edge of conveyer.

Flame Sealing Apparatus, A. G. Hewitt and S. F. Clement (to The Visking Corp., Chicago, Ill.). U. S. 2,459,235, Jan. 18. An apparatus for flame sealing thin-walled thermoplastic tubing, which comprises a pair of driven belts located one above the other and adapted to contact with each other with cam-actuated means to separate belts periodically at machine's feed end to permit insertion between belts of tubing to be sealed.

Folded-Blank Box Tray, C. H. Hensley (to Gaylord Container Corp., St. Louis, Mo.). U. S. 2,459,645, Jan. 18. A rectangular folded-blank box tray comprising a bottom panel, two side walls having inturned end flaps and two end walls disposed alongside of inturned end flaps against the outer faces with upper marginal flaps folded downwardly over inturned flaps and having corner locking flaps.

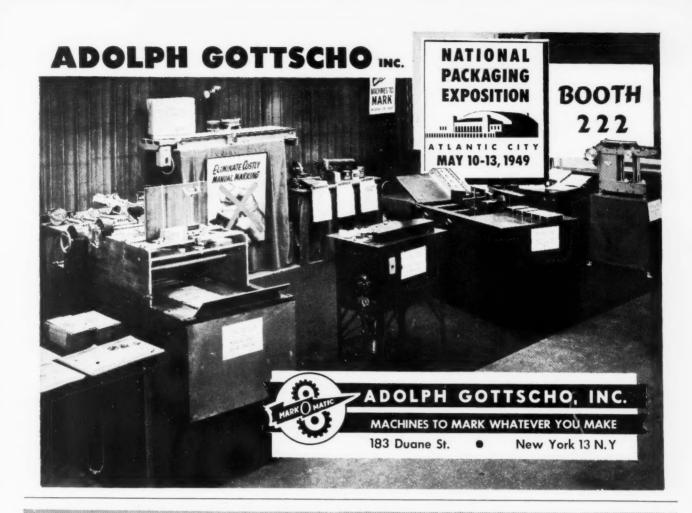
Carton Opener, S. H. Berch (to Arden Farms Co., Los Angeles Calif.) U. S. 2,459,678, Jan. 18. A carton opening machine for use in unwrapping cartons filled with a product, which carton is made from one piece folded to form a six-sided package with overlapping gussets, said machine comprising a supporting plate upon which sealed carton may be placed, a pair of guides at opposite sides, between which carton is moved onto plate, means for engaging contiguous side walls of carton positively, a pair of unfolding fingers disposed adjacent to two remaining opposite edges of platform and means at ends to pass beneath gussets.

Bulk Ice-Cream Container, H. B. Tillery, Kansas City, Mo. U. S. 2,459,727 and 2,459,728, Jan. 18. A box with sides composed of a rectangular strip bent transversely along parallel lines to provide eight faces forming an octagon, strip also being bent back inwardly along a longitudinal line to provide eight integrafaces, alternate ones of which are bent along diagonal lines, constituting "locks," the other four faces being rectangular and held in bent-over positions by "locks," bottom having octagon form to fit into the octagon when assembled and having downwardly bent-over flaps to rest in the groove formed by said bent-over rectangular faces and "locks."

Container, I. Hill and J. D. Hill (to The Lawrence Paper Co., Lawrence, Kans.), U. S. 2,459,939, Jan. 25. A container with bottom and side walls, flaps on their ends overlapping each other for forming end walls for container, said side flaps having registered hand-hold openings and the outer side-wall flaps having slots above the hand-hold openings, equipped with locking means on said bottom flaps extending through hand-hold openings.

Egg Crate, E. H. Lupton (to The Bartgis Bros. Co., a corporation of Maryland). U. S. 2,460,020, Jan. 25. A crate comprising a single blank of flexible material of quasi-rectangular form having 12 panels arranged longitudinally therein between bend lines and end edges with first panel having extensions provided at each end for forming crate ends, being bent to form an outer side wall, second panel being bent on first panel to provide cover.

Collapsible Carrier, R. E. Smith and P. A. Musso (to C. Schmidt & Sons, Inc., Philadelphia, Pa., and Kieckhefer Container Co., Camden, N. J.). U. S. 2,460,108, Jan. 25. A single blank for forming a collapsible carrier, blank being scored to form a first



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portion adapted to form a first side wall of finished carrier, a second portion adapted to form a second side wall of carrier and a third portion intermediate of and hinged to said side walls and adapted to constitute a bottom wall for carrier.

Knock-down Box or Crate, L. R. Rapp, Carpenterville, N. J. U. S. 2,460,104, Jan. 25. A box or crate comprising bottom side and end walls, one-piece metal-end frames, ribs extending inwardly from wall of end frames, bottom and sides being provided with slots along one surface and adjacent ends thereof.

Safety Device for Labeling Machines, S. T. Carter (to Economic Machinery Co., Worcester, Mass.). U. S. 2,460,214, Jan. 25. In a labeling machine a picker element normally receives adhesive from a supply, presses its adhesive-coated surface against the exposed label in a magazine, withdraws label from magazine and conveys it to a transfer point, a picker and picker-actuating cam designed to move picker through a path so picker may perform its normal cycle of operation, control means responsive to the presence or absence, respectively, at the label-applying point, of an article to be labeled, controlling means being operative to limit movement of picker along path to prevent picker from receiving its usual coating of adhesive.

Bottle Holder, S. N. Lebold (to Morris Paper Mills, Chicago, Ill.). U. S. 2,460,229, Jan. 25. A paperboard carrier for a plurality of like bottles, said carrier including a bottom, a pair of flexible side walls connected to the bottom, a vertically extending panel disposed between and terminating above said walls and a transverse partition means in collapsible relation to and disposed between said panel and respective walls, adapted to subdivide the space on opposite sides into cells to accommodate bottles.

Method of Producing Cam Bodies Having Vented Side Seams, T. Begg (to American Can Co., New York, N.Y.). U. S. 2,460,273, Feb. 1. Method of producing sheet metal can bodies having vent channels in side seams to facilitate soldering.

Method of Heat Sealing and Apparatus Therefor, N. Langer, New York, N. Y. U. S. 2,460,460, Feb. 1. A machine for heat sealing thermoplastic sheets comprising in combination a pair of elongated pressure jaws having cooperating pressure surfaces, an electrically conducting directly heated heater element extending along one of said surfaces, means for displacing said jaws towards one another to apply pressure to a corresponding region of a pair of thermoplastic sheets interposed therebetween.

Bundle Sealing Machine, W. L. Irvine (to The American Sugar Refining Co., New York, N. Y.). U. S. 2,460,751, Feb. 1. In a machine for closing and sealing tops of bundles, the combination of means for advancing a bundle with an open top in upright position, means for folding down top, means for applying adhesive to the inner surface.

Method of Making Containers, V. Hagopian, New York, N. Y. U. S. 2,460,820, Feb. 8. The method of making a container which comprises forming cup-shaped elements, overlapping the edges of at least two of elements with their concave sides in opposed relation with adhesive at least at said overlapped edges, enclosing an elastic bag between elements, said bag having an adherent outer surface when heated and applying pressure internally of the rudimentary container thus formed by inflating said bag with heated fluid; after said bag adheres to inner surface of container it serves as the permanent liner therefor.

Multi-Ply Pasted End Bag with Sealed Inner Ply, E. B. Hoppe (to St. Regis Paper Co., New York, N. Y.). U. S. 2,460,885, Feb. 8. In a plural-ply pasted-end bag having a corner closure in which the inner ply is completely sealed, construction at such corner comprising an inturned end flap adjoining along diagonal fold lines a pair of overlapping side flaps folded in respectively along base fold lines.

Bellows-Type Envelope Having All Edges of Mouth Reinforced, M. J. Shaffer, New York, N. Y. U. S. 2,460,909, Feb. 8. In an expansible envelope of the bellows type, a front wall, rear wall of greater height than front wall, bellows connecting side and bottom edges of walls, extension on top edges of walls folded inwardly and secured adhesively to respective walls.

Box Shaping Machine, W. H. Lisle (to Crook Paper Box Co., North Kansas City, Mo.). U. S. 2,460,892, Feb. 8. In a paper box machine having a crimping assembly with means movable toward and away from a box to be crimped into and out of underlying relationship with a portion of said box, the improvement

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which comprises a unitary triangularly-shaped guide block movable with said means into and out of engagement with box.

Multi-Ply Pasted End Bag, E. B. Hoppe (to St. Regis Paper Co., New York, N. Y.). U. S. 2,460,886, Feb. 8. A plural-ply pasted-end bag, end closure of which comprises a pair of inturned corner flaps adjoining along diagonal fold lines a pair of side flaps folded along base fold lines to overlap and to overlie corner flaps, inner ply of underlying side flap protruding beyond the outer ply or plies thereof.

Method of Coating Paper, H. E. Nelson (to Stein, Hall & Co., Inc., a corporation of New York). U. S. 2,460,998, Feb. 8. A method of coating paper which comprises coating the paper in a wet way with a coating color composition comprising an acid deflocculated clay and a starchy polysaccharide film-forming binder, drying the paper to produce a preformed set coating, thereafter treating said preformed coating in a separate step with a resinous condensation produced from the class consisting of water-dispersible film-forming urea-formaldehyde resins and melamine-formaldehyde resins, and heating the resultant products sufficiently to insolubilize the resultant coating.

Box, W. K. Bruckhauser (to International Paper Co., New York, N. Y.). U. S. 2,460,870, Feb. 8. A paperboard box comprising a bottom, side walls, end walls and a removable lid, at least two opposite walls being double ply and consisting of an outer wall portion, a laterally projecting flange portion substantially at right angles to outer wall and an inner wall portion depending from flange, said lid being provided on two opposite edges with tabs extending outwardly in the plane thereof.

Plant Label Mount, B. M. Green, San Francisco, Calif. U. S. 2,461,054, Feb. 8. A plant label mount comprising a flattened tube of transparent material having an end portion folded upon itself, folded-over portion having a pair of slots disposed therein, opposite end of tube also having a pair of similar slots, said slots being aligned to receive a flat supporting stick.

Conveyor and Transfer Mechanism, C. J. Malhiot (to F. B. Redington Co., Chicago, Ill.). U. S. 2,461,167, Feb. 8. In a wrapping machine, a continuously moving article conveyor, a continuously rotating transfer wheel having circumferentially spaced article-receiving pockets adapted to receive articles.

Container, C. O. Ball and F. D. Scott (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,461,251, Feb. 8. A blank of sheet material adapted to be folded for forming a container having a rectangular tubular body and a closed bottom end, said blank being of generally rectangular shape and having parallel score lines spaced to define the four sides of said body and a side seam flap at one end of same.

Article Conveying Mechanism, J. Hohl, R. K. Belnap, Jr., and H. A. Barnby (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,461,279, Feb. 8. The combination of a worm conveyor comprising a shaft and having a spiral conveying surface extending lengthwise of the shaft and concentric therewith and means for rotating the conveyor about the axis of shaft and thereby causing open-mouthed containers delivered in upright position to be advanced on conveyor.

Bottle Chute, E. W. Maynard and P. DiGiarcomo (to American Home Products Corp., New York, N. Y.). U. S. 2,461,290, Feb. 8. A bottle-handling machine having an operating station which periodically and automatically ejects bottles to fall freely in uniformly aligned position with respect to their longitudinal axes and having below said operating station a conveyor belt which receives and advances said bottles.

String Closure Affixing Machine, S. Kilinski (to Baltimore Paper Co., Kansas City, Mo.). U. S. 2,461,327, Feb. 8. In a machine for attaching a string to a sheet article, looper apparatus for holding an end of the string, fastening means for securing end of string to article at a predetermined location and a threader which moves toward the looper to deliver end of string.

Tube Forming Device, F. V. Collins (to William F. Stahl, Kenilworth, Ill.). U. S. 2,461.372, Feb. 8. Apparatus for forming tubes from fusible flat web material, comprising a mandrel, means for advancing webbing forward and into tubular form.

Closure, A. F. Ciarfello, Albany, N. Y. U. S. 2,461,259, Feb. 8. An end ferrule comprising a tubular element open at top and bottom thereof, provided with only a single, inwardly-projecting lug on the inside adjacent the top edge thereof, a cover for the top

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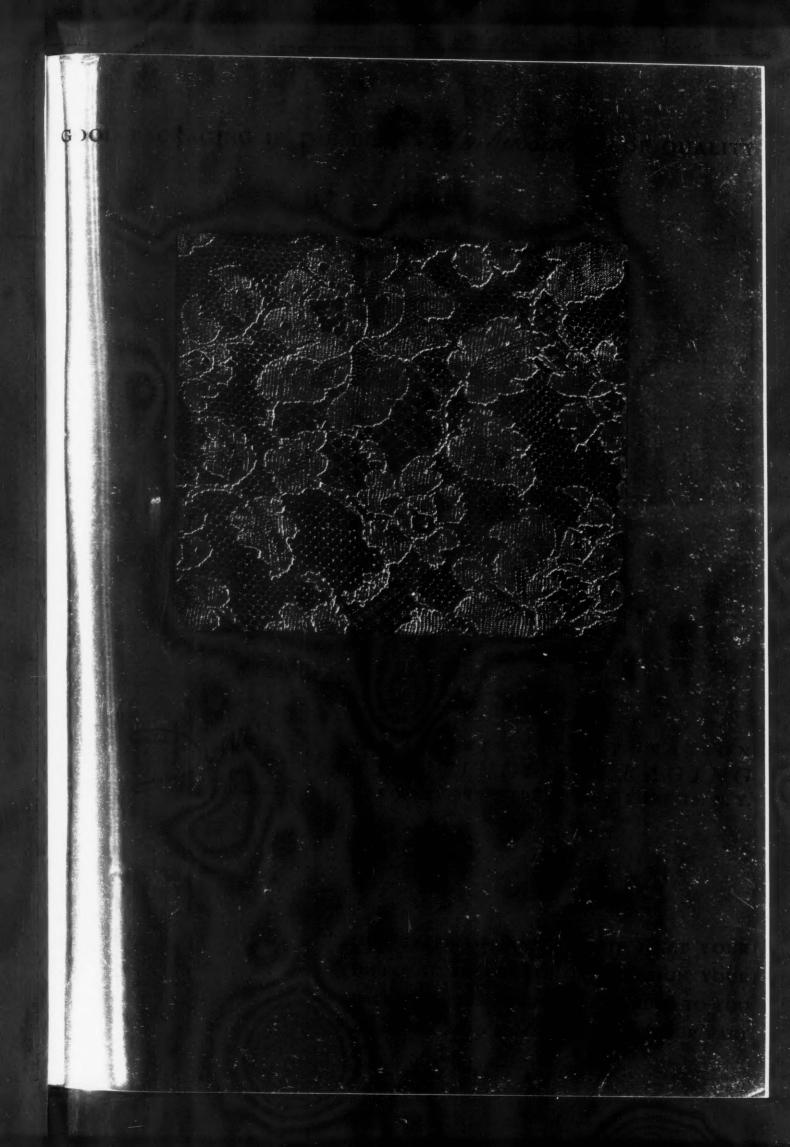
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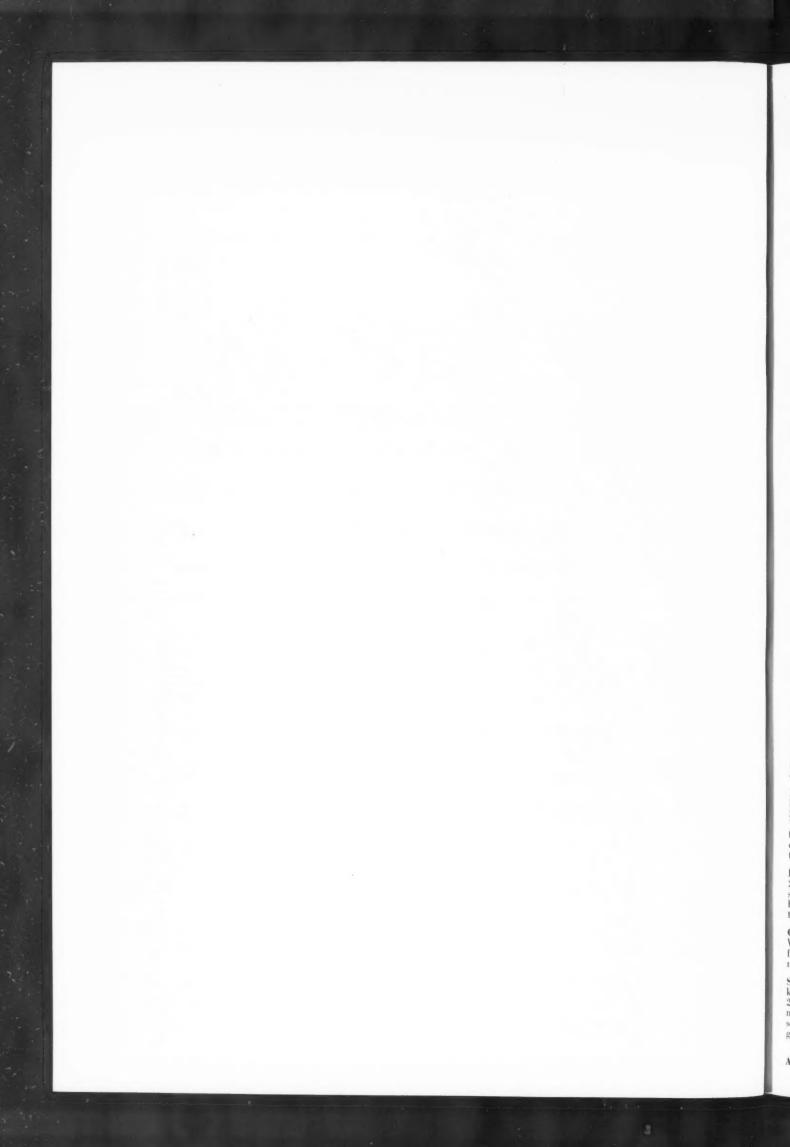
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U.S. Patents Digest

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of tubular element having on the bottom and adjacent the edge thereof a depending, outwardly-projecting lug adapted when said cover is in place to underlie lug on tubular element in spaced relation thereto, having a set screw extending through in threaded cooperation with one of said lugs.

Pre-set Pressure Can for Frozen Foods or the Like, R. LoVico, Astoria, Long Island, N. Y. U. S. 2,461,557, Feb. 15. A pre-set pressure can having a can body with an end hermetically scaled by means of a wall which flexes in the presence of excessive pressure in the can and having a score line of considerable depth with respect to wall thickness.

Packaging Apparatus, J. Riemer (to Kraft Foods Co., a corporation of Delaware). U. S. 2,461,569, Feb. 15. An apparatus with a reciprocal mandrel and means for effecting a reciprocation thereof, means for folding a blank around one portion of mandrel when mandrel is at one end of its stroke, means for shifting the blank folded around mandrel to another portion thereof upon movement of mandrel to the other end of its stroke.

Container and Method of Manufacture, A. B. Wilson (one-half to Kimberly Stuart and one-half to Elizabeth R. B. Stuart, both of Menasha, Wis.). U. S. 2,461,581, Feb. 15. A container comprising a hollow body with a continuous side wall formed of a sheet of paper-like material having reversely bent internal flanges along the two edges thereof at the ends of container, sheet metal reinforcing rims of C-shaped cross-section clenched along and about edges.

Folding Box, A. Whittaker, Burbank, Calif. U. S. 2,461,618, Feb. 15. A one-piece folding box adapted to form a bottom provided with upstanding side walls and a front end wall, a cover provided with upstanding side walls and a front end wall and an end wall common to the bottom and cover.

Dispensing Closure Cap, R. C. Wright, Flint, Mich. U. S. 2,461,620, Feb. 15. A sealing and dispensing closure for attachment to the lip of the open mouth of the container adapted to contain a liquid, a cap of resilient material including a substantially flat top and cylindrical walls with dispensing valve between cap and bottle mouth.

Package, L. L. Salfisbert (to Ivers-Lee Co., Newark, N. J.). U. S. 2,461,660, Feb. 15. A package consisting of a strip of flexible material folded longitudinally in at least three plies to form a substantially flat article-carrying tube.

Container, W. B. Crane and W. B. Crane, Jr., (to Alpak, Los Angeles, Calif.). U. S. 2,461,879, Feb. 15. In combination with a bottle-holding container wherein bottle-receiving cells are defined by vertically arranged interlocking longitudinal and transverse partition means, a separable frame structure comprising a relatively rigid bent wire member having an inverted U-shaped upstanding portion between upstanding portions of container.

Readily Releasable Liquid Container and Cap Sealing Means, P. Guagliano, Mill Valley, Calif. U. S. 2,461,893, Feb. 15. In a liquid container having a cover cap, means for readily securing releasable cover cap in sealed relation to container, including a sealing washer secured within said cap.

Method of Making Flattened Thermoplastic Tubing of Predetermined Desired Characteristics, E. D. Fuller, U. S. 2,461,975; same title, B. H. Schenk, U. S. 2,461,976 (both to The Visking Corp., Chicago, Ill), Feb. 15. A method of producing flattened tubing of predetermined desired characteristics, steps comprising continuously dry-extruding molten thermoplastic in the form of seamless tubing.

Packaging, J. E. Hills (to Kraft Foods Co., Chicago, Ill.). U. S. 2,461,981, Feb. 15. In combination with a serving of cheese in sector shape of a right circular cylinder, each piece being wrapped by overlapping layers of wrapping material with only one outside tab located on curved surface of each serving.

Composite Bottle Cap, D. L. Spender (to Scovill Mfg. Co., Waterbury, Conn.). U. S. 2,462,010, Feb. 15. A composite cap for container with an outside cupped shell of sheet material and non-metallic cup-shaped filler member fitted in said shell.

Sealing and Reinforcing Tape, L. Davis and E. C. Tuukkanen (to McLaurin-Jones Co., Brookfield, Mass.). U. S. 2,462,037, Feb. 15. A sealing tape of strip backing material with normally non-tacking coating thereon of thermoplastic and solvent-applicable adhesive composition: ethyl cellulose, hydrogenated rosin and dihydro methyl abietate.



Greater production with lower operating costs means MORE PROFIT. That is the prime purpose of a Roto bag machine . . . to make the highest quality bag at the greatest speed possible. A wide range of sizes, 2 to 9½ inches wide and 3 to 16 inches long, can be made on the Roto which covers practically all bag requirements. The foldover bottom seam insures maximum strength and eliminates any possibility of splitting, regardless of weight. Most heat-scalable materials—cellophane, diaphane, aluminum foil, laminated films—can be used with ease. Roto machines can also produce Pliofilm bags.

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THE BIGGEST THING YET in packaging FOR SMALL FRY

MOTHER GOOSE CONTAINERS IN BEAUTIFUL COLOR

Here is something new in packaging for kiddies. Whether it be lollipops, kiddie soap, baby sox, crayons, jelly beans, etc. , packed in these Mother Goose containers they'll take on new exciting sales appeal.

Made of metal and with hinged lids, no effort has been spared to make these containers attractive and eye-appealing. The art work has been prepared by America's top-notch children's illustrators. The 8-color lithography, created by English craftsmen, gives the illustrations delightful, life-like appeal. And the Mother Goose rhyme is printed on the sides of the container.

Every child will want these Mother Goose containers . . . and adults will go for them too. These Mother Goose containers will mean extra sales, extra profits for you if your product is in this list:

Animal Crackers & Cookies Baby Accessories Birthday Cards & Stationery Combs Confectionery (Hard Candies, Lollipops) Crayons **Dried Fruits** Handkerchiefs Jewelry

Kiddie Games Kiddie Perfumes Party Favors Rattles Ribbons Small Dolls Soap Toothbrushes

and many others

DIMENSIONS: 4" x 4" x 1%" Diagonal Corners PACKING: 90 to a carton (30 of each subject) DELIVERY: Immediate MINIMUM SHIPMENT: One Carton PRICE: Each per 1000: 33¢ Each per carton: 36¢

containers and the complete I.D. line of fancy lithographed and embossed containers . . .



MARY'S LAMB



HEY DIDDLE DIDDLE



PETER PUMPKIN EATER

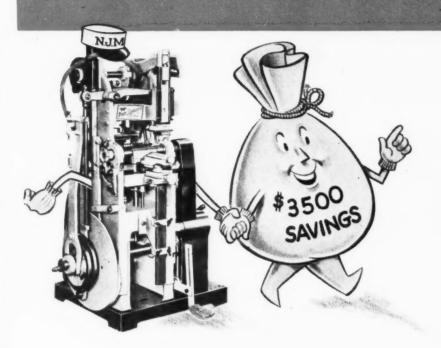
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Fancy Container Division For further particulars on the Mother Goose

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TWIN-ROLLER, MICRO-GLUE ADJUSTMENT

prevents excess glue.

FULL SURFACE GLUING eliminates blisters and loose edges.



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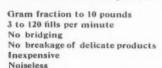
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NEW YORK 1, N. Y.

National Packaging Show

(Continued from page 119) chipboard and corrugated partitions. Personnel: C. N. Nooy, J. Rubin, M. Shapiro. Hotel: Claridge.

AMERICAN PERFORATOR CO., Booth 126B. Dating, code-dating and numbering perforators. Personnel: C. S. McAlister, E. Rix, F. A. Gates, A. N. Wagers. Hotel: Ambassador.

AMERICAN SPECIALTY CO., Booth 116A. Vegetable pre-pack washing equipment, vegetable packing equipment, and vegetable washers and packers. Personnel: H. N. Ricket. Hotel: Marlborough.

AMERICAN TYPE FOUNDERS, *Booth 707*. Four-color multigravure press. *Personnel:* F. MacArthur, E. G. Stacy, E. H. Kling, F. C. Gerhart.

AMSCO PACKAGING MACHINERY, INC., Booth 414. Bag packaging equipment, conveyor, bag sealing machines; also Frazier packaging unit and hopper loader. Personnel: J. D. Keenan, E. E. Messmer, J. D. Sylvester, G. E. Boucher, J. D. Keenan, G. G. Cignoli, F. P. Czifra, J. Kelly, S. R. Watson, E. H. Watson, B. Frazier, J. Frazier, E. Holm. Hotel: Ambassador.

ANDERSON BROS. MFG. CO., Booth 610A. Paper cup filler and capper machine for cottage cheese, honey, etc; ice-cream packaging machine; filler for creams; large bread bag opener. Personnel: S. F. Anderson, R. F. Anderson, W. E. Gunnerson, C. R. Roderick, H. H. Tuttle. Hotel: Claridge.

ARABOL MFG. CO., *Booth 202*. Adhesives for packaging-*Personnel:* E. E. Diedrichs, A. J. Leary, L. Eichstedt, F. McCourt, J. Gerhart. *Hotel:* Claridge.

ARENCO MACHINE CO., Booth 510B. Tube filling machine. Personnel: R. E. Johnson, H. F. Morse, T. Gronberg. Hotel: Dennis.

ASSOCIATED COOPERAGE INDUSTRIES OF AMERICA, *Booth 706*. Wooden barrels and kegs. *Personnel:* F. P. Hankerson, J. B. Eppler, J. W. Little, W. G. Tyler, F. Mauer, H. T. Krause, J. L. Butcher, R. Bradford. *Hotel:* Ambassador.

ATLAS PLYWOOD CORP., Booth 723. Display of boxes and panels. Personnel: A. F. Jordan. Hotel: Chalfonte.

AVERY ADHESIVE LABEL CORP., *Booth 115*. Electric label dispenser and new types of self-adhesive die-cut labels. *Personnel*: H. R. Smith, J. S. Torrey.

BAG PRINT MACHINERY CORP., Booths 420–421. Bag machines with three- and four-color printing press. Personnel: W. S. Ryan, C. A. Laury, C. E. Epler, A. M. Bojanower. Hotel: Seaside.

BARRETT-CRAVENS CO., Booth 606. Lift trucks, hand and electrically operated, skids and box tops, elevators,

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... the "cost-cutting" hot melt for packaging

You, as a package user or package convertor, will be surprised by the low-cost versatility of Nicolmelt 418. It's a colorless, non-toxic flexible thermoplastic coating that's both waterproof and greaseproof, that resists scuffing. It has a high gloss that actually improves the vividness of colors and printing over which it is coated.

glassine, kraft.

Melts fast, sets fast — lowers conversion costs

Applied to packaging papers as a continuous film, Nicolmelt 418 protects packaged goods against damage caused by grease, dirt and moisture exchange. It softens at 180° F. (applied at 250° to 300° F.) and sets almost instantly when the source of heat is removed. Nicolmelt 418 is entirely solvent-free - you get 100% value from each pound. There's no evaporating non-coating solvent to pay for. And the equipment for applying Nicolmelt 418 costs about one-fifth as much as that used for applying solvent type coatings.

Nicolmelt 403

This hot melt adhesive makes heat seals which are 9-50% stronger than seals made with other similar hot melts, depending on the paper stock used. It sets so fast that sealing cycles for bags and labels can be made shorter than ever before. Yet every seal is secure, extra strong.

Heat seal Adhesive 510

A cold printed adhesive for sealing packages and wraps, Adhesive 510 runs in aniline presses just like a color. Hence it is accurately posi-

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Special Adhesives

tioned for sure, easy sealing, and its application adds no extra time to your converting operations.

Malcolm Nicol & Company Hawthorne, New Jersey

Rush detailed information and samples coated with Nicolmelt 418. We package.....

Company

Send this material to our package supplier,

Malcolm N

HAWTHORNE, NEW JERSEY

APRIL 1949

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Use it on sulphite -all papers

There's no proof like a sample

The coupon will bring you additional information and sample bags, labels and wraps coated with Nicolmelt 418 on which you can perform tests. If you include the name of your package supplier, we'll send him this material, too. Let him help determine the value of Nicolmelt 418 for your packages. Fill out and mail the coupon at once! if

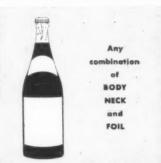
your containers look like any of these:



and

your labels look like these:

(and you desire the benefits of fully automatic operation)



then you should investigate the advantages of

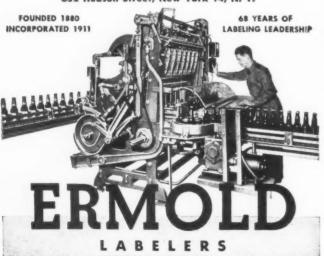
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AUTOMATIC Multiple LABELERS

These highly accurate and dependable machines operate on the multiple principle which permits high output at slow machine speed. Result... good labeling, minimum breakage, steady output, long machine life, minimum operating attention and low maintenance cost.

An Ermold field representative will be glad to study your problem with you to determine whether Ermold labeling methods will save you money. Ask to have him call.

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pallet handling equipment. Personnel: H. M. Donnelly, C. E. Barnes.

BEMIS BRO. BAG CO., Booth 702. Bags, cartons, paper specialties and tubing. Personnel: A. B. Merriam, R. B. LeRoy, A. H. Grace, A. F. Ottinger, R. J. Williams. Hotel: Marlborough-Blenheim.

BENSING BROS. & DEENEY, *Booth 322*. Display of printing on various types of stock. Use of letterpress, lithographic and tin printing inks. *Personnel:* H. G. Bensing, R. Bensing, E. Bensing, J. J. Deeney, B. Haug, T. Dench, N. Cooper, C. Ross, B. Bensing, M. B. Lousin, A. Mueller. *Hotel:* Shelburne.

BETNER, BENJ. C., CO., Booth 506. Various types of paper bags and printed rolls of cellophane, glassine and other papers. Personnel: B. C. Betner, Jr., F. S. Hinkle, H. W. Stevens, P. H. Clark, Jr., S. N. Williams, D. R. Earl. Hotel: Claridge.

BETTER PACKAGES, INC., Booth 612. Dispensing machines for package-sealing tapes. Personnel: M. Waggoner, K. Hill, A. Smith, J. Murphy, L. James, T. Albert, I. De Blayker, J. Schall, N. Campanaro, L. Laughner, B. Boester, H. Smith, G. Ryder. Hotel: Barclay.

BURT MACHINE CO., Booth 621. Labeling machinery and case packers. Personnel: H. A. Miller, J. L. Whitehurst, B. C. York, W. Kruse, M. Young, T. McLay, A. Hornney, J. O'Brien.

CELON CO., *Booth 720*. Display of customers' packages featuring cellulose seals. *Personnel*: L. J. Trecek, J. C. Ford, H. V. Owens, J. S. Adams, R. H. Winston. *Hotel*: Shelburne.

CENTRAL STATES PAPER & BAG CO., Booth 617. Plastic bags, paper bags, rigid transparent plastic containers and specialties. Personnel: H. L. Abramson, H. Velkoff, S. L. Abramson, B. Berkenfield. Hotel: Ambassador.

CHAFFEE, RALPH, & CO., Booth 116B. Heat-sealing machine. Personnel: R. Chaffee, E. Chessman, P. F. Conklin, P. D. Denton, Jr., K. I. Parker. Hotel: Claridge.

CHAMPLAIN CO., INC., Booths 510-511. Rotogravure color unit, newly developed printing unit and Registron unit. Personnel: A. F. Goat, W. R. Goat, L. J. Remington, A. T. Kuehn, J. Martin, H. N. Sheble, H. J. Conroy, J. E. Cade. Hotel: Claridge.

CHASE BAG CO., *Booth 114*. Containers. *Personnel*: E. R. Balman, R. H. Newbill, J. M. Litzwan, F. T. Hults, J. P. Grady, J. Russell. *Hotel*: Claridge.

CHASE EQUIPMENT CORP., Booth 726C. Ampul filling and sealing machinery, and powder filling machinery. Personnel: I. W. Munzer, J. C. M. Henderson. Hotel: Chalfonte-Haddon Hall.

CHISHOLM-RYDER CO. OF PENNSYLVANIA, Booth





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Your production department will appreciate

Your production department will appreciate the time and money-saving advantages of the precision manufacturing, sound engineering and uniform materials of Gaylord Boxes.

Your product must fit "snug as a bug in a rug," must be fully protected against the hazards of frequent, and not always careful, handling as it travels through the steps of distribution to the final user.

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For example, take this plastic, tarnish-resistant "step-up" chest for children's silverware . . . molded by Kirk for International Silver. A clean break from traditional wooden chests, it still preserves the product's dignified elegance . . . adds eye appeal and protective features.

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223. New-Way labeler. *Personnel:* E. J. Abendschein, C. M. Hesson, J. J. Hesson. *Hotel:* Dennis.

CONSOLIDATED LITHOGRAPHING CORP., Booth 418. Lithographic material, labels, wraps and bands. Personnel: R. D. Cole, S. P. Voice, H. A. Voice, H. A. Topping, C. Scheid, E. R. Kresy, W. J. Ash. Hotel: Shelburne.

CONSOLIDATED PACKAGING MACHINERY CORP., Booth 214. Personnel: E. G. Kuhn, J. E. Baum, R. L. Rogers, Jr., L. F. Maurer, R. F. Heller, E. L. Kuhn. Hotel: Ambassador.

CONTAINER CORP. OF AMERICA, Booth 403. Containers, cartons, fibre cans and set-up boxes. Personnel: F.A. Chidsey, R. C. Bittenbender, R. T. Crane, J. F. Carty, J. A. Murphy, R. B. Bennett, G. W. Browne, J. A. Kilmartin, C. W. Ostrom, E. L. Barrett, E. J. Lauth, M. Gaukerud. Hotel: Claridge.

CONTAINER EQUIPMENT CORP., Booth 102. Automatic adjustable cartoner. Personnel: F. W. Kucklinsky, E. M. Kucklinsky, W. E. Haberland, M. Derrico, R. Woelfer, C. Ashe, H. W. Clowe, R. F. Heller. Hotel: Dennis.

CROWN CORK SPECIALTY CORP., Booth 409A. Meritseal, Kork-N-Seal and CEM GP Filler. Personnel: W. R. Fox, V. Hoffman, J. Jordan, G. Schaffer, C. Madding. Hotel: Claridge.

CRYSTAL TUBE CORP., Booth 521A. Cellophane, acetate, foil and Pliofilm containers. Personnel: R. Goodman, H. Goldring, E. C. Walsh, R. H. Goodman, M. M. Mainthow, H. Bornstein, H. Wainer, E. Rush, W. Bederson. Hotel: Claridge.

DERBY SEALERS, INC., Booth 705. Automatic pressuresensitive tape machines, automatic gummed tape machines, label and envelope moisteners. Personnel: A. P. Krueger, W. S. Shee, M. B. Fabian. Hotel: Marlborough-Blenheim.

DIAPHANE CORP., Booth 221. Flexible packages and containers, printed bags and printed rolls. Personnel: J. G. Membrino, H. Membrino, W. E. Membrino.

DOBECKMUN CO., *Booth 204*. New design techniques and new applications of film, foil and laminated packaging materials. *Personnel:* E. P. Whitley, R. S. Jones, J. M. Cowan, K. R. Prindle, R. C. Betts, W. B. Tibbetts, R. M. Siegle.

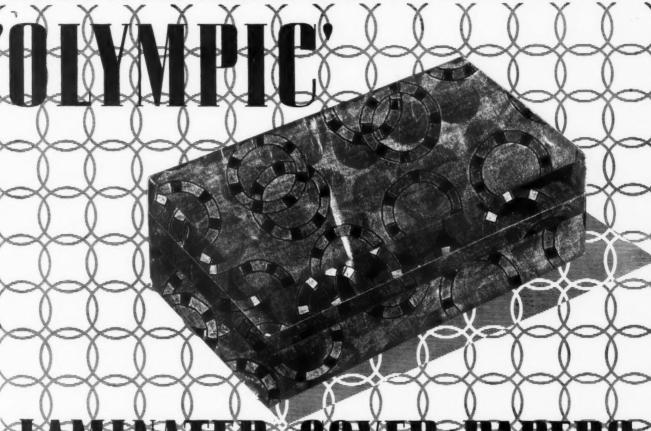
DOUGHBOY INDUSTRIES, INC., Booth 121. New continuous band sealing machine. Personnel: R. Livingston, J. Grevich, C. R. Arnold. Hotel: Ambassador.

DOW CHEMICAL CO., Booth 315. Applications of saran film, Styron and Ethocel sheeting. Personnel: D. L. Gibb, W. R. Dixon, A. Ruddock, J. Minbiole, L. E. Fake, F. J. MaCrae, F. C. Dulmage, J. M. Kuhn, S. D. Smith, G. Olcott, P. W. Simmons, B. C. Stone, R. W. Beckwith. Hotel: Ambassador.

DUMATIC INDUSTRIES. Booth 112. Wrap-around la-

Attention please, in is what container

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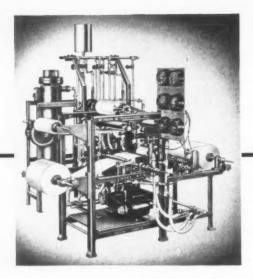
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APRIL 1949



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DU PONT, E. I., DE NEMOURS & CO., INC., Booth 306. Three-dimensional reproduction of modern supermarket stressing importance of transparent point-of-sale package display. Personnel: B. C. Robbins, R. M. MacDonald, L. B. Steele, C. F. Brown, R. R. Smith, W. J. Harte, E. C. Lake, E. A. Wight, W. G. Hunter, N. Allen, W. Farrelly.

EASTMAN KODAK CO., Booth 404. Samples of fabricated transparent containers exhibiting cellulose acetate sheet. Personnel: L. L. McGrady, A. B. Corey, H. Lloyd, V. Howe, P. Braman, C. R. Lee, C. D. Snead, S. Osman, R. Caire, M. F. Tucker, W. Seaman, J. Gruntler, L. R. Mills, E. M. Drummond. Hotel: Marlborough-Blenheim.

ECONOMIC MACHINERY CORP., Booth 415. Automatic labelers. Personnel: A. J. B. Adams, A. J. Adams, H. R. Stewart, S. T. Carter, H. V. Thelin, A. O. Frykholm, R. D. Adams, W. G. Malm, D. M. Sisson, J. Maloney. Hotel: Dennis.

EINSON-FREEMAN CO., INC., Booth 401. Lithographed point-of-sale displays. Personnel: N. J. Leigh, L. J. Engel, A. Hailparn, W. H. Scoble, B. Dreyfus, G. Simmons. Hotel: Shelburne

ELGIN MFG. CO., Booth 523. Single cylinder filling machine for viscous and semi-viscous products; also twin filler with automatic feed, semi-automatic capper for lug and screw-type caps. Personnel: G. R. Stevens, W. B. Sanford, H. G. Manley, D. M. Webster, W. H. Reimer. Hotel: Dennis.

ENVELOPE MFGRS. ASSN. OF AMERICA, Booth 117. Paper envelope display. Personnel: R. R. Bliss, W. H. McManus. Hotel: Chalfonte-Haddon Hall.

FERGUSON, J. L., CO., Booth 602. Telescoping volumetric filler, carton gluing, filling and sealing machine, case sealer, case imprinter equipped with automatic inking device. Personnel: H. L. Greene, P. D. Bowley, C. A. Claus, J. W. Bradford, W. S. Inglis, E. H. Eustice, T. J. McLay, C. F. Wiehrs. Hotel: Claridge.

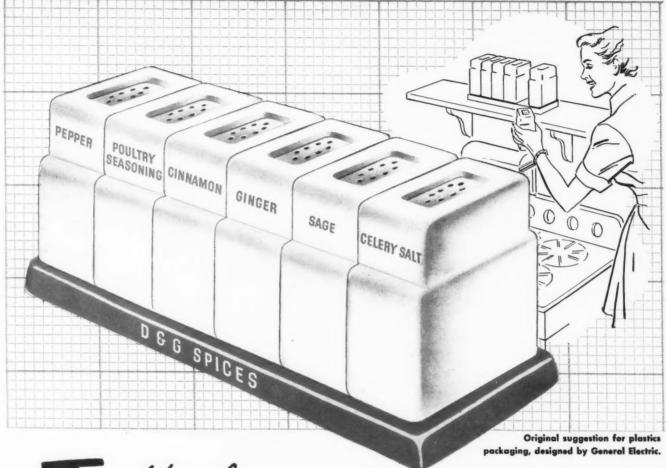
FIBRE DRUM MFGRS. ASSN., Booth 127B. Fibre drums for domestic and export shipping. Personnel: R. F. Gumbert, G. Mather. Hotel: Claridge.

FLOW MAGAZINE, Booth 105A. Packaging mechanics. Personnel: I. B. Hexter, L. P. Aurbach, M. Schueler, L. Haas. Hotel: Ritz Carlton

FOOD INDUSTRIES, Booth 503. Publication. Personnel: M. A. Williamson, L. E. Crist, F. K. Lawler. Hotel: Haddon Hall.

FORCE, WM. A., & CO., Booth 721. Conveyor-line markers and rubber figure case numbers. Also marking brushes, pens, inks. Personnel: W. A. Force, III, H. G. Baumann,

CANDIES



To add sales spice to spices

A G-E PLASTICS PACKAGE DESIGN



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Spice cans slip into plastics covers, are held

Here's a packaging idea designed to bring spice cans out of the cupboard and into a place of honor in the modern kitchen. It's General Electric's novel design for decorative plastics covers for spice cans. These covers, slipped over the cans and set on a plastics tray, become a permanent, attrac-

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S. R. Jordan, J. Nelson, R. Yaeger, W. F. Adams. *Hotel:* Ambassador.

FREEDMAN, LEONARD, & SONS, Booth 718. Leather-len—a leather-like material. Personnel: L. I. Freedman, S. B. Freedman, H. S. Hammond, B. A. Quitman, J. Bell, Mrs. A. Q. Freedman.

GAYLORD CONTAINER CORP., Booth 502. Shipping containers, bags, sacks and wrapping paper. Personnel: B. M. Williams, R. K. Withrow, R. Schoknecht, C. E. Taylor, K. Ravenscroft, W. C. George, G. B. Beaman, Jr., O. R. French. Hotel: Claridge.

GENERAL CAP & CONTAINER CORP., Booth 105B. Dispensing container and cap. Personnel: W. M. Mc-Killop, E. R. Ryno, R. J. Fellner. Hotel: Claridge.

GENERAL MILLS, INC., *Booth* 501. Carton set-up machines, bag fillers and ice cream carton set-up and closure machines. *Personnel:* E. T. Coopat, G. C. Becker, P. E. Fischer, A. D. Hyde, L. H. Merrill, H. A. Rohdin, W. A. Roberts, G. Heath. *Hotel:* Ambassador.

GLASSINE & GREASEPROOF PAPER MFRS. ASSN., Booth 120. Display of papers and of packages using these papers. Personnel: T. J. Burke. Hotel: Chalfonte-Haddon.

GOODRICH, B. F., CHEMICAL CO., Booths 310A-310B. Geon polyvinyl materials and applications of these materials; also 31X coated paper and paperboard. Personnel: J. R. Hoover, A. I. Brandt, G. A. Fowles, O. E. Isenburg, G. E. Field, E. B. Osborne, R. F. Dettelbach, H. F. Engler, J. E. Pittenger, A. E. Grissom. Hotel: Ambassador.

GOODYEAR TIRE & RUBBER CO., INC., Booths 406-407. Representative customer samples; Pliofilm packaged products, featuring Pliofilm supermarket bags for fruits and vegetables. Personnel: A. B. Clunan, J. H. Conrad, E. H. Dours, A. M. Tierney, H. C. Homer, W. J. O'Keefe, T. I. Magnusen, J. B. Post, R. H. Kilgore, D. W. Stroefer, C. P. Joslyn, E. E. Ellies.

GOTTSCHO, ADOLF, INC., Booth 222. Three new marking and code-dating machines will be displayed together with other production-line marking machines: Personnel: A. Gottscho, I. Gottscho, A. van der Lyn, K. Kuett, M. Hirschey, J. K. Jackson. Hotel: Claridge.

GRAYMILLS CORP., *Booth 726B*. Ink pump and new midget pumping unit. *Personnel:* R. Hollis, O. E. Marthinson.

GUMMED INDUSTRIES ASSN., Booth 215A. "The Eight Steps to Perfect Closure." Personnel: F. A. DeVore. Hotel: Ambassador.

HAZEL-ATLAS GLASS CO., *Booth 508*. Decorated tumblers, metal closures, packers jars, packers bottles, wine and liquor bottles. *Personnel:* F. Smith, W. H. Baird, J. L. Hedrikson, J. Blatchley. *Hotel:* Claridge.

HEAT SEAL-IT CO., Booth 217. A complete line of heat-



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sealing equipment. *Personnel:* H. L. Reitzes, I. Fixman, C. Reitzes, C. Steiger, W. Baker.

HEINRICH, H. H., INC., Booth 615. First showing in the U. S. of the Bobst "Super" cutter and creaser for the folding box field. Personnel: H. H. Heinrich, E. L. Harley, H. P. John, A. Bellante, H. Bobst, W. Schlup, L. Milliquest. Hotel: Ambassador.

HIGH PRODUCTION MACHINE CO., INC., Booth 211. Operation of high production Diana wrapping machine and Diana gluing machine for manufacturing set-up paper boxes. Personnel: D. T. Neale, K. R. Schoettle, H. K. Reifsnyder, W. J. Haessler, J. L. Creekman, J. P. Hamerslag, W. Pauke, R. S. Gold, B. J. Hiller. Hotel: Dennis.

HINDE & DAUCH PAPER CO., Booth 405. Latest developments in engineered corrugated shipping boxes and merchandising packages. Personnel: J. H. Macleod, R. W. Whitney, P. Meelfeld, R. A. Frishmuth, R. O. Wilson, R. H. Martin. Hotel: Claridge.

HOLES, FLOYD A., CO., *Booth 210*. Laminated and coated packaging materials. *Personnel:* F. A. Holes, P. W. Decker, W. S. Overton, *Hotel:* Ambassador.

HOPE MACHINE CO., *Booth 714*. Completely automatic six-line filling machine; also single-piston filling machine for small operation. *Personnel:* Lewis Kinsley, Lawrence Kinsley, L. H. Kinsley, J. W. Anderson, J. F. Barry.

I. D. CO., *Booth 717*. Fancy metal containers for gift packaging. *Personnel:* B. Greenstein, C. Molk, A. B. Katzman, S. L. Kaye, G. C. D. McCarthy, M. Renns, A. S. Katzman. *Hotel:* Ritz-Carlton.

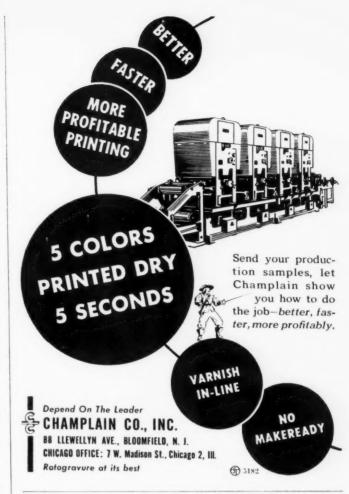
INTERNATIONAL PRINTING INK, *Booth 413.* 2,000 packages printed by all standard processes and with various types of inks; also, General Electric recording spectrophotometer. *Personnel:* L. F. Boyle, W. F. Cornell, W. Davies, G. Davies, L. H. Fish, C. Gibbs, W. Gorie, O. C. Holland, J. Osias, E. B. Perry, R. Rogers, B. Saltzer, D. Tuttle, O. Unglaub, J. Viner, G. Welp. *Hotel:* Claridge.

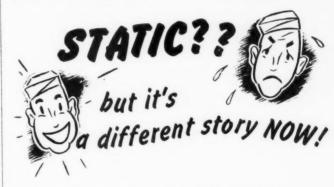
INTERNATIONAL STAPLE & MACHINE CO., Booth 323. Retractable anvil staple machines. Personnel: W. Schafroth, R. Sharpnack, D. W. McKee, E. A. Woodcock, A. Hullevad. Hotel: Ambassador.

ISLAND EQUIPMENT CORP., Booth 420B: Stainless steel Styl-O-Matic rotary accumulating table, rotary unscrambling table, straight-line unscrambling table, bottle, jar and can conveyor and unitized conveyor table. Personnel: J. W. Stiles, D. T. Stiles, J. Tayne, N. Gross. Hotel: Shelburne.

IVERS-LEE CO., Booth 409. Unit packaging for pharmaceutical, food and cosmetic industries throughout the world. Personnel: L. I. Volckening, L. L. Salfisberg, M. J. Salfisberg, J. R. O'Meara, J. P. Measday, D. R. Males, W. G. Ingram, Jr. Hotel: Chalfonte.

JONES, R. A., & CO., Booth 519. Constant motion cartoner

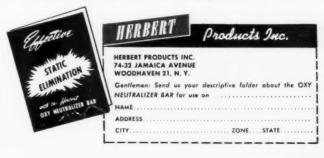




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and demonstration. *Personnel:* W. Jones, A. E. Motch, R. T. Foreman. *Hotel:* Dennis.

KALAMAZOO VEGETABLE PARCHMENT CO., Booth 203. Food protection papers. Personnel: G. Stewart, M. Wood, J. B. Kindleberger, G. Curry, C. A. Blackwood, G. Spies, H. Millman, T. Roy, W. E. Swan, W. E. Martin, C. W. Wood. Hotel: Claridge.

KIEFER, KARL, MACHINE CO., Booth 521B. Conveyor type vari-visco filling machine for filling viscous materials—also filling liquid products into jars and cans. Personnel: J. A. Rheinstrom, P. R. Fechheimer, J. E. Baum, R. F. Maurer, R. F. Heller, M. C. Finn, R. Barnes.

KIMBERLY-CLARK CORP., Booth 320. Creped wadding and its application of cushioning for surface protection and padding in interior packaging.

LAKSO CO., *Booth 726A*. Model 20 semi-automatic tablet counter. *Personnel:* E. E. Lakso, Sr., R. H. Zeidler, E. E. Lakso, Jr., A. S. Chandler. *Hotel:* Dennis.

LEEDS SALES CO., INC., Booth 218. Demonstration entitled "Contract Packaging in the Buyer's Market." Personnel: C. M. Leeds, J. DeSiati, L. Glantz, F. Romano, L. Kulman, G. Bartlett, A. Sobel, F. Carey. Hotel: Claridge.

LEVEY, FREDERICK, CO., INC., Booth 712. Latest model four-color Densatone printing press, Aller bi-metallic lithographic plate and samples of printing. Personnel: G. R. Brodie, C. A. Henlein, W. M. Hawkes, Jr., G. E. Österheldt, Jr., W. D. Newman, G. G. Tucker.

LYNCH CORP., *Booth 201*. Wrapping and cartoning machines. *Personnel*: M. V. Girkins, W. A. Doepel, W. E. Girkins, W. J. Czarniecki, M. H. Pendergast, J. P. McCarthy, O. Sandberg. *Hotel*: Claridge.

MANN, M., & CO., Booth 126A. Algene roller printers and Algene conveyor markers. Personnel: M. Mann, Max Mann, A. Goldman.

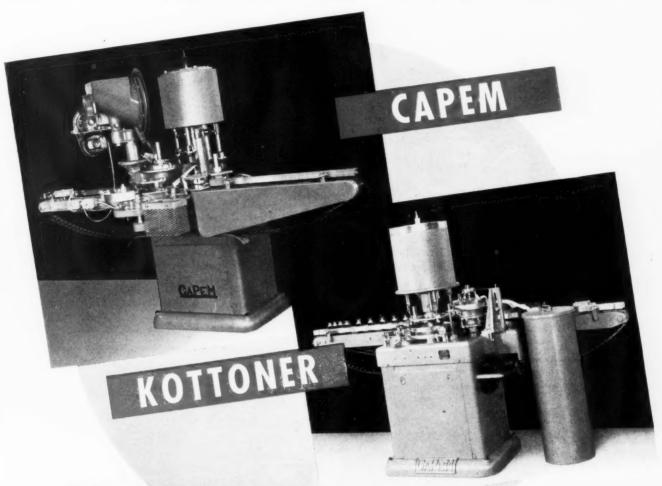
MARATHON CORP., Booth 517–518. Complete line of protective packages and packaging materials. Personnel: F. L. Broeren, H. Anderson, N. Greenwood, R. C. Flom, K. Koehler, C. W. Grafrath, R. Melson, P. Anthony. Hotel: Chalfonte-Haddon.

MARKEM MACHINE CO., Booth 118. New equipment for printing pressure-sensitive tape, two-color equipment for producing complete small paper or fabric labels, other equipment for box and label printing and for printing cylindrical objects or containers. Personnel: D. F. Putnam, H. D. Milton, J. H. Vigneault, O. B. Meyers.

MARSH STENCIL MACHINE CO., Booth 104. New stencil machine, stencil inks, fountain brushes, etc. Personnel: E. J. Marsh, W. Marsh, J. Marsh, H. Hempel. Hotel: Madison.

McKAY-DAVIS CHEMICAL CORP., Booth 321B. Dismat strip-packaging machine, tablet counting and filling

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machine, display of types of packages. *Personnel:* T. F. Donofrio, W. H. Jones, F.E. Prior.

MERCHANTS BOX CO., Booth 128. Fancy wooden boxes, wood displays and television cabinets. Personnel: G. Herbert, W. J. Ferris, M. Pepkin, S. Danson, J. Taylor. Hotel: Dennis.

MILLER WRAPPING & SEALING MACHINE CO., Booth 414. Corley Miller adjustable wrapping machines for quick change-over and irregularly shaped objects; other Corley machines. Personnel: M. Corley, J. Corley, R. H. Freeman, P. G. Freeman, F. J. Faletti, C. W. Montgomery. Hotel: Ambassador.

MILPRINT, INC., Booths 317–318. Packaging applications for practically every industry, Mil-O-Seal for meat packaging and a new bread wrap called "Tifnee." Personnel: W. Heller, R. E. Hanson, L. Zimmerman, S. Rosen, B. Billeb, B. Hefter. Hotel: Marlborough-Blenheim.

MINNESOTA MINING & MFG. CO., Booth 616. Display of tape and uses. Personnel: W. Aldrich, J. Earls, I. Christensen, R. C. MacFarland, O. F. Steinbrecher, L. E. Tyas, W. E. Zimmerman. Hotel: Shelburne.

MODERN PACKAGING MAGAZINE, Booth 505. Personnel: Charles A. Breskin, Alan S. Cole, C. W. Browne, Lloyd Stouffer, Pearl Hagens, Val Wright, P. H. Backstrom, M. A. Olsen, J. M. Conners, R. C. Beggs, J. A. Drucker, B. W. Gussow, W. F. Kennedy. Hotel: Shelburne.

MONSANTO CHEMICAL CO., Booth 301. Merchandising value of plastic packaging—particular emphasis on Vuepak rigid cellulose acetate and molded packages. Personnel: R. C. Evans, J. C. Brunner, E. D. Kennedy, E. S. Brockney, W. A. Lang. Hotel: Claridge.

MOSSTYPE CORP., *Booth 126*. Exhibit of complete production service—photo engravings and rubber printing plates; rubber plate mounting and proving machine. *Personnel:* F. Moss, A. R. Bradie, J. Lecraw, H. Myers. *Hotel:* Shelburne.

MRM CO., INC., Booth 410. Automatic rotary liquid filling machine, unscrambling table, accumulating table, universal semi-automatic filling machine, Model B filler. Personnel: H. D. Manas, F. Rossetti, A. G. McAdams, J. J. Gurksnis, A. Benda, V. J. Gallagher. Hotel: Shelburne.

MULTISTAMP CO., INC., *Booth 212.* Hand-stamp stencil duplicators in various sizes. *Personnel:* F. W. Pennington, S. Levine.

NASHUA GUMMED & COATED PAPER CO., Booth 213. All kinds of paper, film, gummed tape and gummed-tape dispensing machines. Personnel: D. Ramsey, J. R. Carter, II, K. R. Hines, Jr., P. Mulvanity, A. W. Sanborn, O. Neugebauer, R. Fraser, H. Taylor, J. Winn, W. Foster, C. Foster, F. Cookson. Hotel: Claridge.

NATIONAL ADHESIVES, *Booth 304*. Sit-down space and informative booklets on adhesive problems. *Personnel:* F. Greenwall, A. A. Halden, C. Gage, D. Pascal, F. Bradley,



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J. Clay, J. Doyle, A. Edison, J. Engle, F. Di Franco, B. Gordon, D. Graham, H. Kaufmann, L. Klempner, R. McGaffin, B. Reger, B. Schaub, B. Sederlund, E. R. Shephard, J. Snyder, F. Trachtenberg, J. Yurman. *Hotel:* Ritz-Carlton.

NATIONAL METAL EDGE BOX CO., *Booth 303*. New metal-edge boxes and showing of how boxes are assembled from flats in the plant. *Personnel:* M. P. Junkin, C. Paist, J. A. Jobes, W. G. Muhleisen, R. A. Branca, S. H. Nicholson, J. E. Fleagle, C. H. Black, F. C. Jussen, E. L. Bray, L. E. Berry. *Hotel:* Ritz-Carlton.

NATIONAL WOODEN BOX ASSN., Booth 608. Latest developments in wooden boxes, crates, pallets and pallet boxes. Personnel: C. D. Hudson, W. H. Sardo, Jr., Hotel: Ambassador.

NEW JERSEY MACHINE CORP., Booth 216. Fully automatic, non-stop rotary Label-Dri, Model 160, in operation; semi-automatic Pony Lable-Dri, Model 86TO; Code-O-Matic imprinter, Model 87. Personnel: G. W. von Hofe, R. Wellbrock, P. L. Heguy, J. T. Brown, J. F. Parsons, Jr., R. Tank, K. Neimeier, A. Schaeffer, M. Smith, S. Thomson, G. F. Walsh. Hotel: Claridge.

NOX-RUST CHEMICAL CORP., Booth 709B. Nox-rust Vapor wrapper—new rust preventive paper that protects iron and steel. Personnel: R. G. Clendenin, C. E. Salzman, L. M. Francis.

OLIVER MACHINERY CO., Booth 512. Automatic wrapping machine for banding and labeling of various products. Personnel: R. C. Russell, H. B. Tuthill, F. Caldwell, A. Blake, W. Lowthian, C. A. Ginter, Sr.

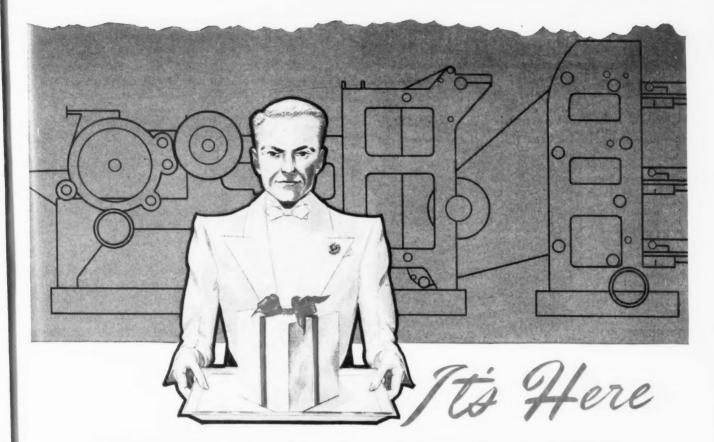
OWENS-ILLINOIS GLASS CO., Booth 514. Facilities of Duraglas Center, customer research and market development building illustrated through 12 translights; Duraglas containers also on display. Personnel: E. F. Bertrand, W. M. Robertson, A. R. Kohl, W. D. Plummer, C. M. Dooley, K. A. Hamel.

PACKAGE MACHINERY CO., Booth 316. Model F cellophane wrapper, Cry-O-Vac vacuum sealing machine, new cigar wrapping machine. Personnel: G. A. Mohlman, R. L. Putnam, T. Miller, E. L. Smith, E. G. Westervelt, H. Mosedale, E. F. Cornock, A. VanWart, F. Todt, J. R. Phin, S. R. Phin, W. Gourley, J. R. Tindal, H. Hoskins, E. A. Hjelm, W. Keil, J. J. Kelly, A. S. Lincoln, N. W. Lyon, R. S. Lyons, V. Pepitone, G. Quisenberry, E. Raimondi, C. R. Strehlau, E. A. Wagner, G. Woody.

PACKAGING PARADE, Booth 314. Parade's April cover will be featured with the theme "news magazine of the packaging field." Complimentary copies of April issue will be available. Personnel: M. Haywood, Jr., M. Pottlitzer, G. Manypenny, B. Dutton, G. Hamilton, H. E. Roden, A. J. Ray, I. F. Megargee, G. Bernard.

PACKAGING SYSTEMS MAGAZINE, Booth 127A. Portrayal and growth of publication in packaging field. Personnel: R. M. Carr, R. E. Greene. Hotels: Brighton and Ritz-Carlton.

PACK-RITE MACHINES, Booth 609. First exhibit of



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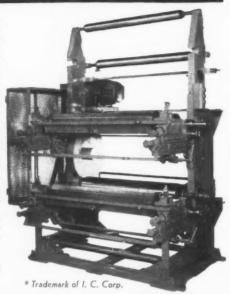
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Auto-Feed Speedsealer; also Pack-Rite bag sealing machines and the Krimpac wrapping machine. *Personnel:* J. A. Kneeland, W. Otto, G. A. Techtmann, H. Techtmann

PAISLEY PRODUCTS, INC., Booth 125. Photo murals on packaging and labeling manufacture and newly completed processing and laboratory equipment of the plant. Personnel: J. Morningstar, M. Stemple, E. C. Lenz, L. J. La-Brie, D. Bookshester, J. Ranft, M. F. Lenz, A. Berk, E. Bearman, S. Schuller, H. S. Miller, P. P. Morningstar, J. B. Morningstar, C. J. Leggett, S. Stewart, M. Hillary. Hotel: Ritz-Carlton.

PARAMOUNT PAPER CO., Booth 709A. Exhibit of trademarked items. Personnel: T. Isen, E. T. Wolf, L. Silvers, A. Isen, M. G. Weisman. Hotel: Shelbourne.

PERL-OUSSANI MACHINE MFG. CO., Booth 116C. Bottle, tube and can filling machines; also bottle cleaning and bottle emptying apparatus. Personnel: I. Perl, J. J. Oussani. Hotel: Madison.

PETERS MACHINERY CO., Booth 119. New packaging machine and sample cartons. Personnel: N. K. Becker, B. C. Lewis, J. Boehler, H. K. Becker, Jr. Hotel: Dennis.

PILLIOD CABINET CO., *Booth 623*. Display and storage chests for silverware. *Personnel:* C. W. Kulp, L. I. Pilliod. *Hotel:* Shelburne.

PNEUMATIC SCALE CORP., LTD., Booth 507. Display of bottled and packaged items produced on Pneumatic equipment. Personnel: N. S. Ross, W. E. Coughlin, R. S. Edling, A. T. Buskens, H. A. Conklin, K. D. Doble, L. F. Blackwell, O. H. Hultin, G. L. Libby, J. Yates, K. M. Peterson. Hotel: Ritz-Carlton.

REDINGTON, F. B., CO., *Booth 219*. Samples of packages produced on Redington machines, photographs and other details describing Redington packaging machines. *Personnel:* C. L. Barr, E. A. Siebert H. Allport, Jr., J. C. Hotton, K. Craig.

REYNOLDS METALS CO., Booths 416-417. Traypak, Reynolds Pak and complete line of aluminum can and bottle labels—also wraps, overwraps and packaging. Personnel: C. F. Manning, P. Murphy, J. C. Bjorkholm, W. Townsend, A. S. Hartanou, G. Hammond, R. T. Clark, J. Cullinan. Hotel: Claridge.

ROCKWELL PACKAGING MACHINES, INC., Booth 704. Automatic packaging machine in operation; also semi-automatic carton opener and filler on display. Personnel: J. F. Currivan, H. F. Lampke, J. Bloemer, W. Burchett, N. M. Schaefer. Hotel: Ambassador.

ROTO BAG MACHINE CORP., Booth 622. Two machines in operation—one producing Pliofilm bags and the other running cellophane. Personnel: R. H. Schnoor, A. Gans, J. Fingerhut, H. K. Pinger. Hotel: Ambassador.

ROYAL, THOMAS M., CO., Booth 309. Display of bags. Personnel: C. Rough, E. V. Ballard, L. T. Davies, R. G. Buchanan, R. G. Wylie, F. Abbott, E. N. Leonard, W. E.

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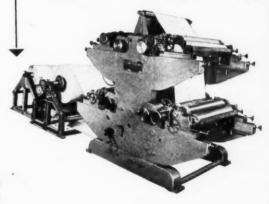
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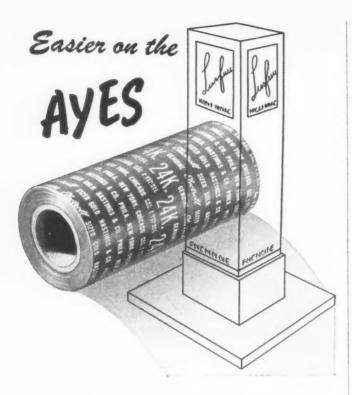
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SCHROEDER MACHINE CORP., Booth 420A. Two new case sealers designed for case control during packaging, gluing and sealing; also made with automatic case feeder, opener and Topac. Personnel: A. C. Schroeder, W. S. Thomas, J. E. Stearns, A. W. Stover, F. E. Williamson, B. Nagy. Hotel: Haddon Hall.

SEAL-SPOUT CORP., *Booth 610*. New model automatic spout inserting machine; also semi-automatic model. *Personnel:* J. B. Klausmann, M. H. Klausmann, H. J. Brucker, R. P. Von Culin. *Hotel:* Marlborough-Blenheim.

SEAL-VAC CORP., *Booth 116*. Machines in operation: vacuumizing and heat sealing, bag making and cellophane sealing. *Personnel:* C. S. Bower, C. Bower, Jr., K. McCreary.

SHELLMAR PRODUCTS CORP., Booth 308. Display of latest innovations in conversion of flexible packaging materials. Personnel: B. W. Martin, B. Verson, W. O. Moore, T. R. Baxter, T. W. Koch, R. L. Lee, E. F. Burke, J. H. Huse.

SHERMAN PAPER PRODUCTS CORP., Booth 408. Protective packaging materials. Personnel: G. Sherman, E. W. Preston, J. H. Herrick, A. J. A. Hardigan, D. S. Roberts, A. J. Bradley, C. Godwin. Hotel: Claridge.

SIMPLEX WRAPPING MACHINE CO., Booth 414. Packaging equipment for forming, filling and sealing bags. Personnel: R. Gaubert, F. Dunmire. Hotel: Ambassador.

SPECTRUM MFG. CO., *Booth 126C*. Demonstration of Spectrum electronic two-corner stayer for sealing corners of rectangular acetate boxes and manufacture of cylindrical acetate containers; bar sealer also demonstrated. *Personnel:* S. Gubin, G. F. Knowles, R. V. Van Voorhis, R. S. Mangel, A. C. De Angelis.

STANDARD-KNAPP CORP., Booth 504. Packing, gluing and sealing equipment engineered to handle small light-weight cartons. Personnel: A. L. Johnson, F. P. Lonsdale, K. H. Mayer, L. F. Shattuck, G. E. Bayer, M. McFaull, G. P. Schaeffer, W. T. Hughes, G. Ingham, E. H. Schmitz, J. H. Mosley, K. Holstebro, M. Tanis. Hotel: Haddon-Hall.

STANDARD PRINTING CO., Booth 619. Printing of cellophane. Personnel: W. E. Hawkins, C. A. Morgan, J. C. Harris, Jr., J. Miner, M. Burkes, H. Clowe. Hotel: Marlborough-Blenheim.

STEIN, HALL & CO., Booth 106. Emphasis on waterproof liquid adhesives. Personnel: R. Strasser, R. W. Shoals, D. H. Lipman, E. I. Stokes. Hotel: Ritz-Carlton.

STOESSEL MACHINE MFG. CO., INC., Booth 221B. Rotogravure sheet-fed press, rotogravure web-fed press, carbon tissue laydown machine and letterpress. Personnel: C. M. Wieland, W. Stockinger, A. Ioannucci. Hotel: Ambassador.

STOKES & SMITH CO., Booth 613. Automatic packaging machine in operation for small candies, automatic case load-

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TRY THIS ABC COLD COMFORT TREA

A Alka-Seltzer

At the first sign of a sneeze or sniffle, start taking Alka-Seltzer according to directions on bottle.



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Be sure you get extra rest. Eat wisely, dress warmly, beware of drafts.

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Forbes has created and produced over one billion package inserts. That outstanding experience is yours to command, to help develop similar items and other lithographed and printed advertising and display material, keyed to YOUR specific needs.

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ing machine for cans—also containers and packages handled on S & S filling and packaging equipment. *Personnel:* C. E. Schaeffer, G. F. Twist, C. H. Nitsch, S. T. Brinton, M. P. Sullivan, Jr., L. G. Smith, W. E. Buswell, T. Martin, C. E. Kerr, E. W. Hardesty, H. C. McClure. *Hotel:* Dennis.

SUN CHEMICAL CORP., Booth 521. Commercial samples of printing done with various inks used in the packaging field. Personnel: W. Recht, E. J. Kelly, W. Parisette, E. A. Luedke, T. Rosevelt, Miss H. B. Stout. Hotel: Chalfonte Haddon.

SUTHERLAND PAPER CO., Booth 703. Folding boxes.

SYLVANIA DIV., AMERICAN VISCOSE CORP., Booth 516. Packages wrapped in Sylvania cellophane. Personnel: J. W. Little, H. H. Hamburg, J. G. Mohlman, J. A. Anglada, F. W. Spannagel, T. H. Derby, J. C. Davis, R. E. Whitson, E. M. Farris, A. J. Horgan, R. E. Sexton, R. E. Reynolds, T. O. Williams, L. E. Nash, J. L. Loughran, E. V. Weston, H. W. Dearborn, W. F. McCabe, W. Wade, R. E. Trippe, G. W. Kindt, F. Morris, R. D. Handley. Hotel: Ritz-Carlton.

TABER INSTRUMENT CO., Booth 210A. New Universal cylinder beader and new electronic cylinder reamer. Personnel: R. F. Taber, L. S. Barker, J. F. Less. Hotel: Ambassador.

TOMPKINS LABEL SERVICE, Booth 402. All types of heat-seal labels for various types of machines; also featured, new Tompkins' Econo-Pak label dispenser. Personnel: J. K. Tompkins, F. L. Tompkins, W. H. Baile, Jr., C. Orth, R. Norris, W. Harris, J. Donohoe, R. Heyden. Hotel: Claridge.

TRANSPARENT WRAP MACHINE CORP., Booth 722. Demonstration and operation of Transwrap machine and packages. Personnel: W. R. Zwoyer, R. F. Freebody.

TRAVER CORP., Booth 321A. Complete presentation of printed flexible packaging. Personnel: Mr. and Mrs. G. White Traver, Mr. and Mrs. P. C. Traver, Miss P. L. Maley, Miss P. A. Lang, Miss L. M. Haderlein, A. K. Cockerell, F. J. Pool, F. W. Hageman, M. J. McEnery, G. H. Friend, R. Blackburn, C. W. Dickinson, F. Rodenberger, V. J. Sheridan, N. Brown.

TRIANGLE PACKAGE MACHINERY CO., Booth 205. A revolutionary contour wrapping machine designed for pre-packaging certain types of produce. Personnel: L. R. Muskat, R. A. Stone, O. L. May, W. P. Muskat. Hotel: Traymore.

TROTH, BRIGHT & PAGE, INC., Booth 725B. Plastrafol rigid transparent folding cartons. Personnel: S. Bright, Jr., J. S. Troth. Hotel: Marlborough-Blenheim.

TWOMBLY, C. E., CO., Booth 725A. Fluted paper and foil cups for packaged items. Personnel: G. F. Twombly, W. E. Smith. Hotel: Claridge.

UNION BAG & PAPER CORP., Booth 515. Exhibit of low cost, automatic packaging in flexible and rigid fibre containers. Personnel: R. C. Burton, R. J. Harley, R. W. Williams, E. M. Rickel, J. P. Duffy, R. Bennett, R. C.



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A complete custom service from sketch to a finished product that is exclusively yours. Your lithographed containers combine easy brand identification with ideal product protection.

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Shannon, H. Recher, S. K. Bradley, L. Massey, E. E. Brown.

UNION SPECIAL MACHINE CO., Booth 111. Dubl-Tape bag closing unit on display. Personnel: A. J. Feigel, B. W. Merz, J. H. Muir.

U. S. ENGINEERING CO., *Booth 210B*. Count-O-Matic electronic packaging machine; also, precision sorter. *Personnel:* B. R. Garrett, L. G. Rose.

VISKING CORP., Booth 321. Applications of Visqueen in packaging. Personnel: L. E. Houck, E. B. Cahn, W. R. Hemrich, J. Bernard, A. Meis, H. Harris, D. Carlson, J. Kaltman. Hotel: Marlborough-Blenheim.

WAXED PAPER INSTITUTE, INC., Booth 709. Exhibit of bread, cereals, soap, cookies, candy, etc., packaged in waxed paper. Personnel: A. H. Noelke, A. Conroy. Hotel: Chalfonte-Haddon.

WEBER ADDRESSING MACHINE CO., Booth 726. Complete line of tag and label addressing machines; also new machine which prints without ink or stencils. Personnel: J. Weber, C. E. Ritter, E. Warwick.

WEBER, H. G. & CO., INC., *Booth 123*. Complete line of Weber paper and cellophane bag machines. *Personnel:* H. H. Weber, F. L. Lubeley. *Hotel:* Ritz-Carlton.

WEINMAN BROS., INC., *Booth 716A*. Transparent plastic boxes, counter dispensers, cans and displays. *Personnel:* A. Weinman. *Hotel:* Ambassador.

WHEATON GLASS CO., Booth 510A. Standard line of toilet water and Nosolvit serum vials, opal jars, glass ampules and new combination polyethylene Snap Cap with lightweight glass vial for packaging hygroscopic materials. Personnel: E. S. Hagerthey, F. W. Schofield, A. S. Dunham, R. Brown, E. McDowell, H. Cowperthwaite, G. Britten, H. H. Mills, F. H. Wheaton, Jr.

WINNE, FRANK W., & SON, INC., Booth 716B. Twines and cordage, specialized cords for character packages. *Personnel:* L. J. Kelley, N. H. Richman, F. C. Thies, J. R. Snape, J. D. Clark, Jr. *Hotel:* Claridge.

WOOD CONVERSION CO., Booth 207. Tufflex—felted wood fibre protective padding; display of product and its application. Personnel: R. E. Backstrom, R. E. Donnelly, K. C. Lindley.

WOODMAN CO., INC., Booth 711. Air Weight automatic, weighing and packaging machine for light density products; also Klo-Seal high-speed sealing machine and Klo-Stitch automatic stitching machine. Personnel: D. E. Woodman, L. L. Antle, W. L. Chapman, J. L. Kelley.

WRAP-KING CORP., *Booth 709C.* Wrapping machine for overwrapping of disk-type products. *Personnel:* C. Robb, C Ouellette, R. Nathan.

WRIGHT MACHINERY CO., Booth 208. Hy-Tra-Lec weigher for small metal products and double unit Hy-Tra-Lec for net weighing of candy. Personnel: G. M. Spicer, I. P. Ritschel, E. O. Norvell, W. W. Cast, J. C. Petrea. Hotel: Shelburne.

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Birch Plywood, 3/30" thick	
Gum Plywood, ½8" thick	. 600
Gum Plywood, 3/16" thick	. 875
Cottonwood Plywood, 3/20" thick .	820

(Above tests made by Container Laboratories, Inc., New York City)

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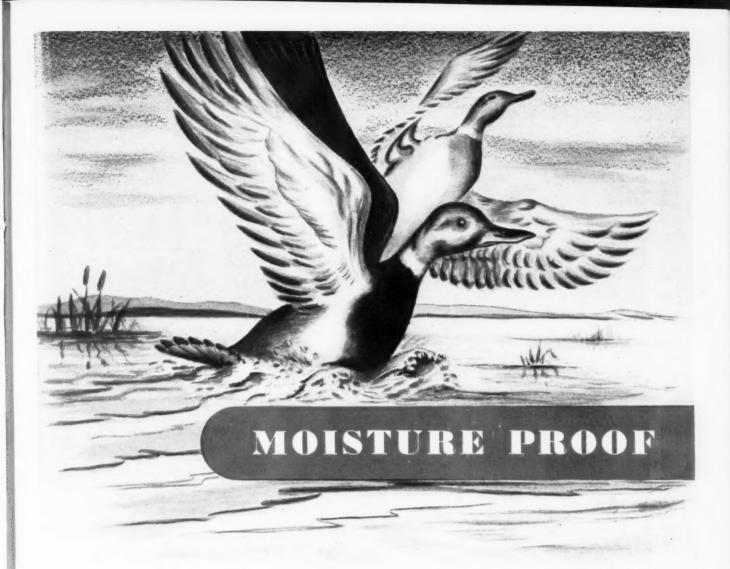
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Whether you require just one machine, or a complete new packaging line . . . whether you use cans, bottles, or cartons ... Standard-Knapp engineering and design experience assure cost-reducing efficiency for every packaging operation.

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Provide fast, continuous delivery of washed new glass containers, without thermal shock.

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Rapidly arrange cans dumped from crates in single file at operating economies that quickly pay for machines.

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Automatically pack bottles into trays or cases, and pay for themselves in efficiency.

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Automatically pack cartons of all sizes and shapes into display or shipping cases with maximum speed and economy.

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Apply glue to the carton or shipping case, not to the contents; insure strength with neat, economical sealing.

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- Simplified, one-piece construction provides a self hinge . . . partitions and sections also formed in the molding operation.
- Soft, rubber-like quality of the polyethylene cushions product, is noiseless and non-scratching.
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- A better package can be molded for less than the cost of comparable containers of other materials.
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A revolutionary new type of package, developed by Auburn, has its first application as a case for the buttonhole attachment made by the Greist Mfg. Co., New Haven, Conn., for the Singer Sewing Machine Co.

The inherent characteristics of the polyethylene combined with the unusual self-hinged cover (tested by over 70,000 openings and closings) make this the ideal type package for luxury items or items that require permanent re-use packaging.

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In 1856 H. S. Crocker Co. proudly placed a crude sign on their first print shop...a humble tent in teeming Sacramento, the gateway to the goldfields of the West.

Today the H.S. Crocker Co. name in glowing neon is proudly displayed over our new printing and lithography factory . . . the most modern label and graphic arts production center of the postwar West.

Here in this great plant, on one huge floor, lithography and letterpress procedure functions with smooth-working assembly line efficiency. Outstanding labels for every purpose, printing and lithography for every business need, are completed with maximum speed and economy by means of modern techniques and up-to-the-minute press and handling equipment.

See for yourself why this factory means better quality, better service and greater economy for you. Visit us in our new home in San Bruno, California, just seven miles south of San Francisco.

In step with our ultra-modern printing center at San Bruno, our plant in Baltimore, Maryland, has also been enlarged and equipped to operate with equal speed, efficiency and economy.

Crocker Union

A DIVISION OF

H. S. CROCKER CO. INC.

San Francisco • Los Angeles • Seattle • Chicago • Baltimore
New York • Denver • San Diego • Honolulu

A S. Crocker Co. label and graphic arts production or tot. Nearly four acros of newsr, most officient linhoraphy and printing equipment all on one floor.

The PACKER "JUNIOR"

is a giant for work

FILLS BOTTLES

from Fractional Ounces to Quarts

FILLS CANS,

Up to Quart Sizes

A compact unit for big time production with minimum space re quirements.

This and other Packer Vacuum and Gravity Liquid Filling Equipment now in successful operation in these nationally known plants:

- E. I. DuPont
- Dow Chemical Co.
- Continental Distilling Corp. Socony-Vacuum Oil Co., Inc.
- Singer Sewing Machine Co.
- Pyrene Mfg. Corp. Hudson Motor Car Co.

- Lyk-Nu Co., Inc. Bristol-Myers
- Arrow Liqueurs Corp.

in Small Space · Available in 8, 10 or 12 spouts

IDEAL for PACKERS of

Chemicals

Liquors

Maximum Production

Pharmaceuticals

Speeds up to 80 containers per minute

Write at once for complete data

PACKER MACHINERY CORPORATION

34 Irving Place, New York, N. Y.

GRamercy 5-8223

Cosmetics

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FOR EVERY BUSINESS THAT PACKAGES A PRODUCT

MODERN PACKAGING ENCYCLOPEDIA 122 E. 42nd Street New York 17, N. Y.

Gentlemen:

I need a comprehensive, step-by-step guide to package planning and production. Please send me copies of the profusely illustrated, 994 page, 1949 MODERN PACKAGING ENCYCLOPEDIA @ \$6.50; Canada \$9.00, including duty and postage; Foreign \$11.00.

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Dutch Boy

(Continued from page 130) the company's own plant.

Introduction of the consumer line (1-qt. to 5-gal. sizes) required more complete and more colorful labeling and the company therefore turned to conventional paper-labeled cans and pails. The blue and white label which distinguishes this line was designed by Georges Wilmet. From three sketches presented by Mr. Wilmet, the present label (see cover) was chosen as giving the most straightforward presentation of the priceless trademark and name, the type of paint and white space for imprinting of number and color.

Success of the new label is attested to by the fact that it has been retained, with a mere change of wording, as the consumer line has expanded from straight house paint to include sash and trim, porch and deck and primer types. It is used also for the new "Wonsover," a single-coat, oil wall paint which marks Dutch Boy's entry into the interior-paint field on a national basis.

Advertising and promotion

Behind every successful product and package lies an advertising and promotion story. The lesson is particularly clear in the case of Dutch Boy products which, without intensive and continuous efforts to popularize the trademark figure among the general public, could scarcely have attained anything like the volume they represent today.

Yet, judging from available figures, the direct advertising expenditure on Dutch Boy has not been exceptional. Tables compiled from American Newspaper Publishers Assn. figures show that from 1939 to 1947, inclusive, national advertising of this brand in magazines, newspapers and radio totaled only \$1,694,944 an average of \$166,105 a year. The bulk of this was spent in magazines.

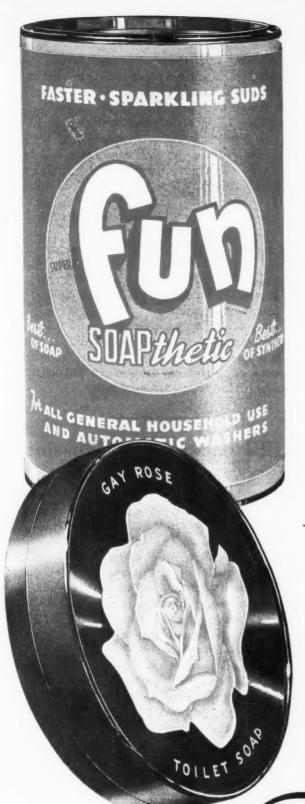
Naturally with products largely adapted to master painter's use, an important part of Duich Boy advertising was also directed to trade papers. Even now, despite a line of paint products which appeal to consumers as well as painters, a large portion of National Lead Co.'s advertising goes to trade publications. However, as far back as 1909, top-notch consumer magazines appeared on the advertising schedule. A 1909 issue of The Dutch Boy Painter reproduces a double-truck from the Saturday Evening Post, which, it says, "has received much favorable comment."

In addition to national advertising, the company has consistently supported dealers' local advertising. But the really unusual and effective media of Dutch Boy promotion have been:

1. Supplying of samples, souvenirs, costumes, statuettes, signs, calendars, window displays and every other conceivable means of popularizing the Dutch Boy.

2. Continuous publication for 41 years of *The Dutch* Boy Painter (one of industry's oldest house organs), constantly exhorting the trade to the most effective use of this promotion of the trademark.

Nobody knows how many millions of lithographed



CLEVELAND CONTAINER....

designed to meet today's needs

There is always ONE LEADER no matter how competitive the field may be.

Eye-compelling attractiveness is always at a premium.

Our flexibility in production is keyed to meet changing conditions, just as our nearby plant production enables us to work closely with you from designing to deliveries.

Our Creative Design Dept. is at your service . . . our nearby field representative awaits your inquiry.

In good packaging

Visit our Booth No. 107 at the 18th AMA Packaging Exposition

MeCLEVELAND CONTAINER Co

- All-Fibre Cans Combination Metal and Paper Cans
- Spirally Wound Tubes and Cores for all Purposes
 Plastic and Combination Paper and Plastic Items

PRODUCTION PLANTS also at Pyrmouth, Wisz., Ogdensburg, M.Y., Chicago, III., Betrait, Mich., Jamesburg, M. S.
PLASTICS DIVISION at Pyrmouth, Wisz., Company, M.Y., Chicago, III., Betrait, Mich., Jamesburg, M. S.
SALES OFFICES: Room 5522, Croad Central Termouth Building, New York 17, M. T., also 647 Main S.L., Bartland, Cook.
CAMADIAN PLANT: The Clereland Container Canada, Ltd., Prescott, Ontain. Sales Offices in Toronto and Mantreal



WEBER

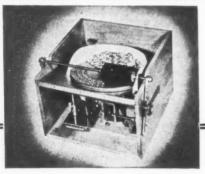
PAPER AND CELLOPHANE
BAG MACHINES



SEE US AT BOOTH NO. 123 AT THE PACKAGING EXPOSITION

H. G. WEBER & COMPANY, INC.

KIEL, WISCONSIN, U.S.A.



The PerfeKtum TAB-COUNT
Tablet Counting Equipment

A unique device which permits rapid and correct counting of tablets, capsules, pellets, lozenges, veterinary and poultry supplies and packing same into any size or shape container such as bottles, vials, jars, cans or boxes.

The TAB-COUNT operates by count—not by weight, eliminates overcounts and does not require any tiresome pulling, pushing or shaking, being entirely electric in operation. Simple to operate and economical to use.

Write for complete literature.

Perfektum PRODUCTS COMPANY

Established 1922
300 Fourth Ave. New York 10, N. Y.



reproductions of the Earle painting have been passed out; at one time the framed picture was as familiar in the parlor as "God Bless Our Home." Thousands of homes and offices still have souvenir figures in the form of paperweights, statuettes, etc.

The appeal was particularly strong to children and the company has never overlooked the opportunity to plant the trademark image in young and receptive minds. One of the most successful promotions for many years was a children's paint book containing paper chips of paint from which the pictures (including, of course, several Dutch Boys) could be colored. A coupon in the book invited parents to write in for a booklet on house painting.

The company still will loan a Dutch Boy costume—cap, wig, shirt, overalls and wooden shoes—to any person who writes in and asks for it for any reasonable purpose, and the little painter has graced thousands of parades and masquerades.

National Lead Co. has given the world a lesson in trademark development and prestige building, and the wisdom of its conception is a contributing factor to the continuous growth of net sales—from \$80,000,000 in 1939 to more than \$320,000,000 in 1948.

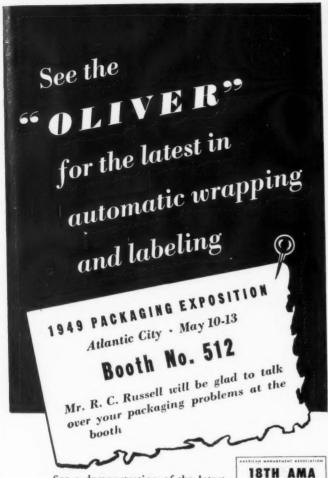
TAPPI packaging discussions

Packaging test methods came in for attention at the recent annual conference of the Technical Assn. of the Pulp & Paper Industry in New York.

Water-vapor permeability testing at zero deg. F. was one of the principal topics discussed by the Packaging Materials Testing Committee, which met with Dr. S. R. Sears of the Institute of Paper Chemistry as chairman. Previous committee work had indicated a great deal of variability and many unknowns in existing test procedures. The discussion brought out no new procedures or any confirming data on any of the older methods. However, it was decided to have tests run on at least two of the methods which appeared to have the most promise. Results should be available for the next year's meeting, when it is hoped that some decision can be made in regard to this important test.

The discussion also covered flavor and organic vapor permeability test methods and the results of the work of the various laboratories during the year. It was suggested that a possible test method could be based on the use of tracer elements (carbon isotopes) in the aromatic materials, to give a more reliable end point than organoleptic means

Dr. Sears announced the termination of his tenure of office as chairman of the committee, in accordance with TAPPI organizational procedures. The new chairman will be Dr. L. E. Simeral, technical research director of the Converting Division of the Marathon Corp. Dr. Simeral will choose his committee members and the composition of the new committee will be announced later.



See a demonstration of the latest

developments in automatic wrap-ping, labeling and label imprint-ing by "Oliver" at the Exposition! If you are interested in wrap-ping and labeling baked goods, fresh produce and meats, frozen foods, boxed candies, boxed cut flowers, paper luncheons sets, shirts, sheets, towels or products remotely similar, the "Oliver"

demonstration may give you some valuable ideas. Inspect the "Oliver" Roll-Type Labeling System! A die-cut label from a con-Just before it is applied, a "blank" label rom a con-imprinted with essential information. And see the colorful display of "Oliver" Roll-Type Labels—designed and printed in our own modern printing plant.

NATIONAL

PACKAGING

EXPOSITION

MAY 10-13, 1949

Don't miss this exhibit . . . bring your wrapping and labeling questions to Mr. Russell.



OLIVER MACHINERY COMPANY Grand Rapids 2, Mich. Packaging Division

Wrapping Machine "OLIVER" AUTOMATIC ROLL-TYPE LABELLING SYSTEM

NEW!

INEXPENSIVE 2-PIECE PILFERPROOF MAILING CONTAINERS



Typical method for packing and sealing a Niemand Pilferproof Mailing Container. Also shown: Niemand Container for ball point pen refill; usable for leads for automatic pencils, phonograph needles, small twist drills and similar products.

No longer is there any danger of having your mailing containers rifled . . . not when you use sturdy Niemand Pilferproof Containers. They have been tested for mailing many articles including fountain pens and pencils, thermometers and fragile objects of similar nature. Niemand Pilferproof Containers have strong metal ends which are securely crimped on . . . they can't be pushed through or pulled off to get at the contents. They really protect your merchandise.

What's more, extra-safe Niemand Mailing Containers can be covered with your own trademarked paper or printed to your order. They come in diameters from $\frac{5}{8}$ " to $1\frac{5}{8}$ " in all lengths. They're not expensive either.

You'll find that Niemand is your best source for other spiral wound packages, too. We supply them plain and printed, in just about every type known. Write today for free samples . . . no obligation.

37-01 35th Avenue Long Island City 1, N. Y. RAvenswood 8-0909

CASE HISTORY

Company, manufacturers of Prepared Mixes, set up facilities for small scale consumer packaging to meet the

demand for their product in selected areas.

With the opening of their sales campaign, these facilities proved inadequate, and high speed production was re-quired without the loss of valuable time

THE EDLAW COMPANY contacted-temporary installations were madeimmediate production was started-and truckloads of finished cases were moving to fill current orders. thirty days automatic equipment, built within the plant, was in operation.

The technique devised for handling this mix, has since been developed for a number of non-free flowing products.

mmmmm Contact The Edlaw

Contract **Packaging** AT PRE-DETERMINED COST

88-61 76th AVENUE GLENDALE, L. I., N. Y.



Ask for catalog No. 48 or Bulletin No. 481 and 482.



WEIGH RIGHT AUTOMATIC SCALE COMPANY JOLIET . ILLINOIS . U. S. A.

The slack-fill problem

(Continued from page 147) candy was slack filling is a question of fact for the District Court to decide.'

But the Court of Appeals also held it was not necessary for the Government to prove that any person or persons had been deceived by the package.

FDA attorneys relied on this decision in preparing the Arden case, but did not find it much help. The Boston court wanted more evidence than the package itself that there was likelihood of deception. Obviously, an appeal in the Arden case would be futile because the First Circuit would hardly reverse its own earlier ruling that slack filling is a question of fact for the trial court to determine.

FDA must take a new tack

Thus, any further attempts by the Government to enforce the slack-filling provision will no doubt come in new cases, in which FDA will no doubt try to apply what it has learned. These future slack-fill cases, when they come, can be expected to involve consumer testimony—reactions to the allegedly deceptive package, or survey data showing what the consumer expects to find in the package. More expert testimony by production men and packaging machinery engineers will probably be sought.

It should be borne in mind that any District Court can find a slack-filled package to be misbranded on facts quite similar to those in the cases which the Government has lost. And one case, if carried to the Supreme Court, could change the whole picture as it has developed to date in the lower courts. Furthermore, FDA has not given up on slack filling, but will seek new cases of what it considers flagrant violations. To industry this means that the bars against slack filling, while they are somewhat strained, are still very much in place.

The case for the set-up box

(Continued from page 117) details of finish, inner facings, extension edges, etc., if the packaging does not warrant such added details.

Boxmakers with an eye to customer's requirements may also suggest a package of set-up box construction in combination with other package forms. The advantage of the transparent package, which permits the shopper to see the contents, may be easily achieved by combining a set-up box base with a drawn transparent acetate cover. This sometimes gives more rigidity and strength to the package, makes it easier to open and at the same time can enhance the color effect by adding a tight wrap of decorative paper to the base of the box.

Sometimes for toys and other popular-priced novelty items, where packaging costs must be watched closely, it is possible to use a base of folding die-cut and platform construction, made inexpensively in one piece to hold a variety of irregularly shaped items, with a lid



Faster Filling with the ANDERSON PORTABLE BAGGER

Designed to handle foods, confections, and numerous products in metal, plastic, wood, and rubber. Operates with a minimum of effort at a maximum speed.

Simple adjustment for height ... tilting forward or backward enables the operator to set machine at easiest working position.



Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower with filter keeps bags clean and free from foreign matter.

Send for Bulletin No. 4-29 ANDERSON BROS. MFG. CO. ROCKFORD, ILLINOIS



Style TF Listed by Underwriters' Laboratories, Inc.

Amazingly Accurate CONTROL of Base-Heat Properly Seals Heat-Sealing Materials

Each heat-sealing material requires its own particular temperature to

The Wells Thermosealer solves this tricky problem—makes it easy because Wells developed an adjustable Thermostat that holds the temperature of the aluminum base within the close tolerance required for the given heat-sealing material. You get perfect seals. In devices where the temperature is not closely controlled, sealing is haphazard.

Assures Perfect Seals

For more than 10 years the Wells Thermosealer has proved reliable. It is sturdily built for long years of good service. Made by the Wells Manufacturing Co., a prominent electrical manufacturer of 30 years' experience, the Thermosealer is widely used the nation over. Users try one, like it, and

It plugs into any Alternating-Current Convenience Outlet of 110 volts.

Properly insulated and built for safe use. Has long-lasting full-size Heating Element. Adjustable Temperature Control of high accuracy.

The Wells Thermosealer, built of Aluminum and weighing but 10 ounces, does not fatigue the operator.

Sold by Dealers in Heat-Sealing Materials

WELLS MANUFACTURING CO.



220 Ninth Street (WELLS MADE (NELLS IS WELL MADE) San Francisco 3, Calif.



Candy, Gum, Cookies, Pet Foods, Cosmetics, Toilet Articles . . .



NEW YORK 12, N. Y.

"Triumph Brand" Stockings dress-up and cleverly package Christmas offerings-stimulate sales for offseason items. Most effective as a promotional and merchandising medium. Available in net, cellophane or cloth. Get the complete details. Inquiries invited! Write today!

JAMES THOMPSON & CO., INC.

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SyrocoWood point-of-sale Displays are molded in beautifully sculptured forms with unlimited variety in texture, wood grain, metallic and full-color finishes at REMARKABLY LOW COST.

Our designer-engineers, expert in advertising, display and merchandising techniques, are at your service. We invite your inquiries. Write to

ADVERTISING DISPLAY DIVISION, DEPT. Y
SYRACUSE ORNAMENTAL CO, INC., 225 Fifth Avo., New York City



of set-up construction to make a stronger package unit for handling and shipping.

Interior treatment of set-up boxes offers a wide range of possibilities for adaptability and economies. Trays and paperboard platforms, fabric linings and paddings, even plastic films, provide great flexibility and possibilities for simplification.

Sharp & Dohme, for example, was able to eliminate entirely the cost of individual foil wrapping of suppositories called Tresanoids by adopting a new kind of partition developed by the boxmaker from a continuous strip of transparent acetate sheet automatically formed in accordion folds, each holding one unit of product. The former package required an "egg-crate" type of partition and each suppository was protected by aluminum foil wrapping. Because the acetate has the necessary grease resistance for the product, the foil wrapping is no longer necessary and the whole packaging operation is greatly simplified.

Selecting the boxmaker

Because of the endless variety of constructions and uses, many boxmakers, although they can produce a great variety of boxes, specialize in certain types of set-up boxes. Some firms make a specialty of irregularly shaped candy boxes, such as the heart-shaped boxes for Valentine's day, etc. Several large companies are specialists in the making of round face-powder boxes. Others are makers of paper cigar boxes, department store merchandise boxes, jewelry boxes, leather and fabric-covered and metal-trimmed boxes, boxes for the professional drug field, functional metal-edge mailing boxes, etc.

When you have a specific packaging problem that requires a set-up box, it is well to seek a company which specializes in boxes for the product you plan to package. Their experience is then at your disposal to give you the best box of that type. Specialization, of course, keeps down cost.

One firm, for instance, has become so well known for mailing boxes that its name is almost synonymous with mailers. This company has spent years developing an unusually strong light-weight boxboard for mailing boxes withstanding Mullen tests equivalent to 150 to 200 lbs. per sq. in. and its boxes tight wrapped with kraft paper are reported to withstand two to three times as many drop tests as average boxes of the same construction. Such strength combined with light weight is of inestimable value to the firm sending out thousands of small samples through the mails when costs are determined by weight and where handling is rough.

Sometimes, also, it is advisable to select the box-maker for his geographic location. The closer the source of supply, the less cost is added for shipment and set-up boxes are undeniably bulky. It is also easier to get supplies quickly and in smaller quantities to minimize warehouse space. Most boxmakers are now geared to ship box requirements on a hand-to-mouth basis. In fact, one new box firm only a year old maintains that its quick-service feature has been one of

The ELGIN TWIN FILLER



Peanut Butter, Jams, Jellies, Cosmetics, Mustard, Mayonnaise, Sandwich Spreads, etc.

with

New Model

Elgin Automatic Feed

Semi-Automatic Capper

especially designed for tapered tumblers will be on display

Packaging Exposition

MAY 10-13

Booth 523

See it or write for details

ELGIN MANUFACTURING COMPANY, Elgin, III.

Builders of Filling and Capping Machines For Over a Half Century





the essential factors of success. A great deal of its business is in supplying retail store boxes and the new company has found that in retaining a stock schedule of a complete line of gift boxes in white embossed paper that can quickly be steel-die stamped on the premises with store identity, purchasers have assumed a "comforting dependence upon us for over-night delivery."

All forecasts indicate that 1949 is the turning point for an "anything-sells" market to one of stiff competition. Such competition demands not merely adequate, but the best packaging. The set-up box is a timetested packaging form. Its appearance and convenience factors will give extra selling punch in countless instances. It will pay to consider carefully all its aspects when making a package decision.

CREDITS: Alfred Dunhill and Elizabeth Arden boxes—Chaspec Mfg. Co., Greenwich, Conn. Flocked paper for Dunhill box—Behr-Manning Corp., New York. Jumbo Clock Blocks, George P. Pilling & Sons, Sharp & Dohme Tresanoid, Penn Line and paper napkin boxes—Waller P. Miller Co., Inc., Philadelphia. Webster Cigar box—Niagara Box Factory, Inc., New York. American Optical Co. mailers, jewelry boxes (p. 112), Tootsie Roll Chest and Boston Tea Party boxes—The Mason Box Co., Altleboro Falls, Mass. Valcort and Dexdale hosiery box wraps and Jacques Kreisler fan box wraps—designed and printed by Donrico Designs, division of J. Makowsky Corp., New. York. Rare Jewel box wrap—designed and printed by Brooks & Porler, Inc., New York. Coty powder box and all boxes in Dee line family—W. C. Ritchie & Co., Chicago. Foillined box for matches—Old Dominion Box Co., Charlotte, N. C.

Acknowledgment to Everett Young, Inc., Providence, R. I., for information on Tilden-Thurber Corp. boxes and to Regent Paper Box Co., Inc., Philadelphia, for supply and distribution information.

Contest winners

(Continued from page 174) Div. of Owens-Illinois Glass Co., Elkhart, Ind. Honorable mention: Jergens Liquid Cream Shampoo, product of Andrew Jergens Co.; Nail Brilliance by Cutex, manufactured by Northam Warren Corp.; Plasteen Nail Make-Up, distributed by A. Sartorius & Co. and designed by Helen Neushaefer; Pond's "Lips" lipstick, product of Pond's Extract Co., designed by R. W. Schusler; Star Double Edge Blades, manufactured by American Safety Razor Corp.

Notions and Allied Lines. First award, Dawn Argyle Socks and Dawn Argyle Mittens packages of American Thread Co., Inc., designed by W. H. Lackie, New York. Honorable mention: Scoldy Lox Glamour Guards (Bob Pins), product of Scolding Locks Corp. and designed by Ernst Spuehler, Chicago, with George Petty as the artist.² Kayo Boy's Suspenders, manufactured by Sturm & Scheinberg, Inc., and designed by Norbert Jay, New York; The Donald Duck, Mickey Mouse and Gene Autry Belt packages of M. Slifka & Sons, Inc., of Chicago.

HOUSEHOLD AND HARDWARE. First award Industrial Synthetics Corp. for its Elastron Clothesline package made by Chopp Printing Specialties Co., Inc., New York.³ Honorable mention: to Sitroux, Inc., for its

See Modern Packaging, Feb., 1949, page 104.
 Modern Packaging, Feb., 1949, page 104.

MOLDED CLOSURES bu Terkelsen

STOCK

15 %
15 %
15 %
10 %
10 20 %
10 22 %
10 22 %
10 22 %

24 7,40 28 410

18 410 58 410

Stock sizes 10 m/m to 58 m/m in phenolics or striking urea colors CUSTOM



We specialize in private mold designs

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Jesselson Sales Co., Inc. 347 Fifth Ave., New York 15

J. Rabinowitz & Sons, Inc. 2 Hanson Place, Brooklyn 17



Our new home.

50,000 sq. ft. of manufacturing space devoted to the manufacturing of HIGH QUALITY

TRANSPARENT Plastic BOXES & CANS



See our exhibit, Booth 716-A Packaging Exposition, Atlantic City, May 10-13; or send for samples and catalogue.

Weinman Brothers, Inc. 3260 W. GRAND AVE., CHICAGO 51

objects you see every day











bring conveying problems you don't see every day!

ALVEY DIVERSIFIED EXPERIENCE . . .

an "EXTRA" that comes with

ALVEYORS

the word for every conveyor need

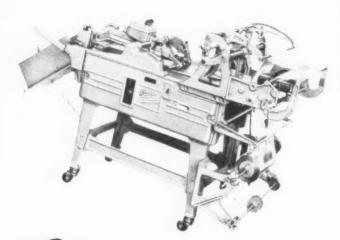
Alvey experience in diversified industries produces a PLUS in know-how when it comes to solving tough-nut problems. The problems of plant transport with their thousands of variations are met with every day by Alvey engineers...in planning and building systems that meet specific requirements...from meat to motors...from bottles to books! Correct design and skilled fabrication of the various types of conveyors...expert knowledge of their correct application represents experience that can only come from widespread contact with the problems of ALL industry. An EXTRA that means...results are sure...with Alvey! Consult Alvey ...St. Louis...on your materials handling problems... our know-how, our experience are at your disposal!

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G

HAKE OWN YOUR OWN BAGS 7t3 GOOD BUSINESS



ITH a SIMPLEX Bag-making Machine you can make up to 5000 bags per hour right in your own plant, using your regularly employed help. These bags are made from plain or printed roll stock of any of the thermoplastic coated or laminated stocks. You can keep your inventory of bags in proportion to your product inventory. Production need never be held up for lack of bags—no waiting for delivery from an outside source of supply.

Two models of SIMPLEX machines are available. Model 1 makes flat and gusset square bottom bags in sizes up to 9" wide and 16" long, using 24" maximum width roll stock. Model 4 makes similar bags up to 12" in width and 20" long, using roll stock up to 30" in width. Material for single or double wall bags may be used. All bags are securely formed, heat-sealed and stacked. We solicit your inquiries.

Many attachments available electric eye, bottom crimp. er, blue line, tube making, roll stock automatic heatseal labelling. New coding attachment for printing price, weight, or brand names on labels as they are automatically applied.

Simplex

WRAPPING MACHINE COMPANY

Sitroux Toilet Tissue package, designed by Mitchell Studios, New York; to Bill Schnirring Co. for Sparkel Cube Ice Tray, designers Lippincott & Margulies, New York; and to Bell Electric Co. for the No-Shok Surface Outlet package, designed by Hunter-Gaby Studios of Chicago.

Toys, Games and Stationery. First award, the Foxy Doctor Play Kit manufactured by Empire Products, Inc., and designed by Richardson Taylor-Globe Corp., both of Cincinnati. Honorable mention: Ideal Novelty & Toy Co. for its Clown Roly Poly Package, which was designed by Atlantic Advertising Co. of New York,

Seasonal Goods and Miscellaneous. First award, Bradford Novelty Co. for its package of Christmas Tree Ornaments in Plastic, designed by Associated Paper Box Co., So. Boston, Mass. Honorable mention: Bazooka Bubble Gum package of Topps Chewing Gum, Inc., designed by Karl Fink of New York City.

4 Modern Packaging, March, 1948, page 120.

Package copyright permitted

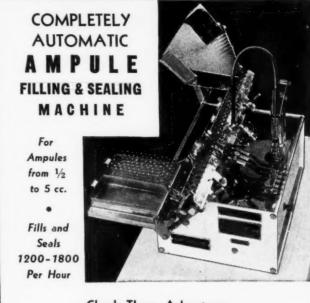
Important news to all users of private-mold or special-design containers is word from Washington that the Copyright Office has reversed its practice of many years and will now receive copyright applications for "works of artistic craftsmanship" in three-dimensional form. Members of the toilet goods industry have been advised that this apparently opens the way to simple copyright protection for unique designs of bottles, boxes, atomizers, compacts, lipstick cases and the like, which previously could be protected only by a design patent, obtained through the Patent Office. It would appear to apply equally well to all private-design bottles and boxes, if of an "artistic" nature.

The term of a copyright is 28 years, with a possible renewal of the same period, while the longest term of a design patent is 14 years. Furthermore, the procedure in the Copyright Office is simple, whereas design patent applications always require the services of an attorney. Fee for a copyright is only \$4.

Numerous attempts have been made in the past to persuade the Copyright Office to copyright new designs for bottles and the like, but the Office has always refused applications for any item of manufacture that is mechanically reproduced in quantity, however artistic or unique. The change in policy is revealed in the Federal Register of Dec. 29, 1948, quoting Section 202.8, Works of Art (Class G) of the copyright regulations. Form GG for the filing of package copyright applications can be obtained from the Copyright Office, Washington, D. C., which customarily registers all applications if in proper form.

Notice of copyright must appear on the package, but can consist simply of the letter C in a circle, accompanied by the initials, monogram or trademark of the copyright holder, molded into the base of any private-mold bottle.





Check These Advantages:

- · Fills and Seals in One Operation
- Can Be Adapted for Asceptic Filling
- Requires Only One Operator
- Designed to Handle Irregular Ampules
- Operates With All Varieties of Gas

Write For Descriptive Material

CHASE EQUIPMENT CORP.

47 East 19th St., N. Y. 3.

Algonquin 4-9040

"Where can I purchase a . . . ?"

"We need a tube which will"

". . . and how can we make it stick?"

"What will keep my product moist when?"

"Our problem is to reduce caking of"

"Who can redesign my package?"

Each month, the Readers' Service Department of MODERN PACKAGING answers scores of questions for our readers. Questions range from simple requests for information about the manufacturer of a can, machine or box to requests which demand detailed, technical answers.

With their extensive files, reference library and wide knowledge of packaging materials, machinery and procedures, the members of the Readers' Service Department can usually supply the information you request. In addition, the technical and editorial staffs of MODERN PACKAGING are at their disposal

for attending to questions which are particular "sticklers."

If you have any questions, feel free to forward them. There is no charge or obligation for this service. Address—Readers' Service Department, MODERN PACKAGING. A complete reply to your inquiry will be forthcoming.

MODERN PACKAGING

-A Breskin Publication-

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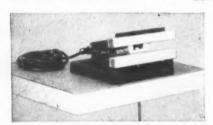
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MODEL "B" HEAT SEALER

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CLEVELAND LATHE & MACHINE CO.

Leaders in Lower-Price Heat Sealing Equipment Lines Since 1936
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Five pounds in film

(Continued from page 165) in sales of 10% and says that these bags proved cheaper than the "next best" on the market, were better for display of the product due to their complete transparency and were favored two to one over other types of unit containers.

Colonial Stores expects to continue and expand its use of these transparent supermarket bags and in addition is seeking to influence its suppliers toward the use of the bags at the shipping point for such items as Florida oranges.

E. Shapiro, produce merchandiser of the Big Bear Markets of Michigan, in Detroit, is continuing Pliofilm packaging in this firm's 15 large supermarkets because of the proved larger sales volume and consumer acceptance in their stores.

Finally, Harold Wilkens, Chicago branch produce merchandiser of the Kroger Co., on the basis of the test program, has decided to go into a complete program of contract bagging of oranges in Pliofilm bags for the 150-odd stores in the Chicago area.

CREDITS: Pliofilm made by Goodyear Tire & Rubber Co., Akron, Ohio, and converted by The Denton Corp., Oakland, Calif.; The Dobeckmum Co., Cleveland; Milprint, Inc., Milwaukee; Neostyle, Inc., Cleveland; Pen-Mac-Nye Co., Akron, Ohio, and Shellmar Products Corp., Mt. Vernon, Ohio. "Check-Way" bagging machine, Food Machinery & Chemical Corp., Florida Division, Lakeland, Fla. "Pack-Rite" heat sealer, Pack-Rite Machines, Division of Tectmann Industries, Milwaukee.

Western Packaging Show

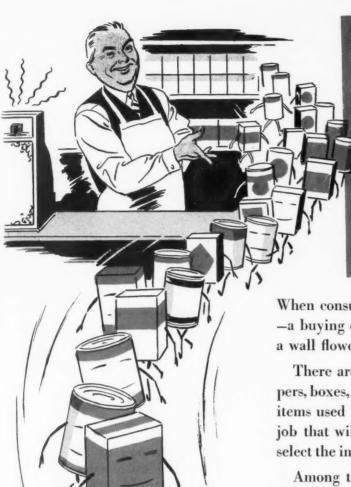
Basic plans for a "greatly enlarged 1949 show" have been drawn up by packaging industry executives forming the Advisory Board for the second annual Western Packaging Exposition to be held in San Francisco's Civic Auditorium, Aug. 9 to 12, inclusive.

"We anticipate that approximately 125 major firms will exhibit the latest developments in machinery, equipment, supplies and materials in the fields of packaging, packing and shipping at the Western Packaging Exposition," stated Kenneth K. Dean, general chairman.

Clapp & Poliak, Inc., sponsors of the West's own packaging show, report that two-thirds of the exhibit space in the San Francisco Civic Auditorium have already been contracted for by exhibitors in the 1948 Western Packaging Exposition, with many firms taking increased booth space.

The second annual Western Conference on Packaging, Packing and Shipping—which runs concurrently with the Exposition at the Auditorium—will begin on Tuesday, Aug. 9, with sessions scheduled for both morning and afternoon. Top national authorities will scrutinize the newest techniques and procedures in packaging, packing and shipping at the Conference.

The Exposition will not open its doors until the following day, Wednesday, Aug. 10. On Wedenesday, Conference Sessions will be held in the morning and the



INKS in the Terrice of PACKAGE PRINTING

When consumer and product meet at Point of Purchase

–a buying decision is made. Don't let your package be
a wall flower—make it a leader in the sales parade.

There are special inks for printing on cartons, wrappers, boxes, bags, cans, collapsible tubes and sundry other items used in the packaging field. In order to produce a job that will be satisfactory to all concerned you must select the ink best suited to your particular requirements.

Among the inks made by the companies comprising General Printing Ink Company Division we wish to call your attention to the following, each of which is adapted to some packaging technique.

FOOD CARTONS AND LABELS — Hydry is a moisture setting ink for the food field. It dries quickly, permitting uninterrupted processing with no storage time needed for drying.

CANS, TUBES AND METAL CONTAINERS — Hard-Tex metal decorating inks are available for lithographic application. Coatings and varnishes for metal protection supplement the decorating inks.

METALLIC FINISH INKS—Silversheen and Goldsheen produce effects simulating metal surfaces, such as aluminum, copper, bronze and silver.

NON-SCRATCH AND GLOSS INKS — Glostone and SUveneer are particularly suitable for labels, wrappers and cartons likely to be subject to considerable handling and wear.

ROTOGRAVURE INKS—for long run printing of labels, wrapper and folding boxes, rotogravure inks are economical and satisfactory.

TEXTILE BAGS — there are special textile inks for printing on fabric bags used in shipping sugar, flour, cement, and other loose products.

WOODEN BOXES—there are special inks for printing on wooden boxes, crates and covers.

For detailed information regarding any of these inks, you may write to our office nearest you—or visit Booth #521 at the Packaging Exposition in Atlantic City—May 10-13, 1949.

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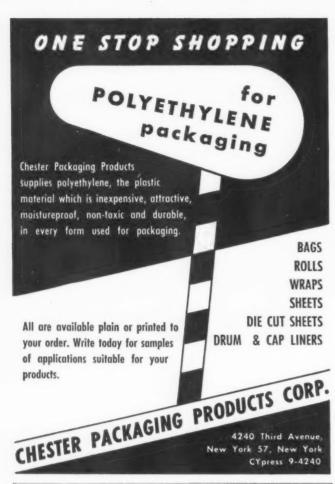
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Write for full information.

Court & Creamer St, Brooklyn 31, New York

Exposition will run from 1:00 to 8:00 p.m. Thursday, Aug. 11, there will be Conference Sessions in the morning and the Exposition will be open to visitors from 1:00 to 10:00 p.m. The concluding day, Friday, Aug. 12, will have no Conference Sessions and the Exposition will be open from 10:00 a.m. to 5:00 p.m.

These hours were decided upon by the Advisory Board to provide maximum opportunity for visitors to attend both the Exposition and the valuable technical sessions, which will feature outstanding authorities in the fields of packaging, packing and shipping.

The 1948 Western Packaging Exposition, first to be held in the Far West, attracted over 6,000 Western executives interested in packaging, packing and shipping equipment, materials and supplies. Technical sessions were also attended by hundreds of visitors, who heard of advances in packaging research and equipment and supply developments.

Swedish carton comes to U.S.

(Continued from page 123) in addition to the features cited above, it is (1) considered more hygienic in manufacture and packaging and (2) more easily handled automatically and therefore less costly.

A typical case history, among the 15 leading Swedish food packers now using the package and machine, is that of the A/B Chokladfabriken Marabou, Stockholm, whose "Findus" brand of chocolate pudding mix is illustrated in the foreground of the photo on page 120.

Previously, the Marabou company used a carton with a separate inner bag. The bags were filled by two girls operating a filling machine with a capacity of 25 per minute. The carton was set up by hand, the bottom glued, the bag inserted and the top glued. In all, nine girls were required on the line at a labor cost of \$42 a day and production was 1,225 cartons per day. The labor cost therefore averaged 3.4 cents per carton.

With the new package and machine, two girls operate the entire line at a total labor cost of \$9.40 a day and capacity is 16,000 cartons per day—an average labor cost per carton, at capacity, of less than 0.006 cents.

The cost of the combined carton and liner is practically the same as that of the previous bag and carton. Altogether, including the charge for the new machinery, the Marabou company figures a saving of around \$7,200 a year.

American prospects

In Sweden the new package has been used mainly for three types of products: coffee (ground and unground), pudding powders and dehydrated foods. The new American licensees of the carton and the machinery foresee a far wider use in this country, considering our more exacting packaging requirements and the wide range of protective liner materials available.

Among the product fields they are aiming for are ground coffee (heat-sealable liner of Pliofilm or cello-

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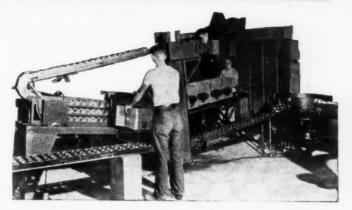
Casing Problems Vanish when New Way Takes Over the Job!

If your product is packed in cylindrical tin containers, CRCO-New Way can solve your casing problems! Better yet, your labor costs can be materially reduced.

CRCO-New Way Casers are the most economical available. Precision-built to give trouble-free service day after day throughout the year . . . and year after year. Automatic in operation.

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Send for the new CRCO-New Way Catalog, showing a complete line of trouble-free labeling Machines, Casers, Container Elevators, Container Feed Tables, Glass jar washers and other equipment built to improve production and eliminate many hours of costly labor. If you have a labeling or casing problem, CRCO-New Way can solve it. Write us now!

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Sharpens itself while running • Turns waste paper into resilient paper wool packing • Ideal for disposal of secret and confidential docu-

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Kiernan-Hughes will make a sample package for you. Just forward your product to us. It will be sent back to you—attractively packaged in a Safeguard Set-Up Box. But send that product *right now!* There's no obligation.



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phane); cookies and cereals (either a non-heat-sealed liner of greaseproof glassine or heat-sealable waxed paper, cellophane or foil lamination); dried fruits (heat-sealed moisture-content fruits, waxed paper or glassine for low-moisture fruits); teas and spices (non-heat-sealed foil lamination or glassine); sifting products such as cornstarch and sugar (most of which could use a non-heat-sealed glassine liner); frozen foods (heat-sealable cellophane, polyethylene or Pliofilm); dessert powders (waxed paper, sealed or non-sealed) and dried milk (heat-sealed liner).

It is pointed out that where exceptional eye appeal and protection both are desired, as in the case of dried fruits, American carton-making techniques would make possible a package with foil-laminated outer surface, which, combined with a water-vaporproof liner, would offer the utmost in protection.

CREDITS: Ceka Lita carton—Owned and controlled by A/B Centrala Karlongfabriken, Ulusunda, Sweden; licensing rights for United States and Canada held by Packaging Industries, Inc., Montclair, N. J. Ceka automatic packaging machine and Ceka carton sealer—Owned and controlled by Christenssons Maskiner & Patenter A/B Ulusunda, Sweden; manufacturing rights for the United States and Canada held by Clybourn Machine Co., Chicago; sales agents, Packaging Industries, Inc., Montclair, N. J.

New liquid-penetration test

A new Tentative Test for Penetration of Liquids into Submerged Containers, developed in Technical Committee D-10 on Shipping Containers of the American Society for Testing Materials, covers a procedure for determining the amount or extent of penetration of liquids into finished packages or containers when closed and sealed for shipment. The test may be applied to small or shelf-sized packages or to bulk sized containers as required. The test may be applied to containers as packed or after one or more performance tests such as drum, vibration drop, or actual shipping tests as required. Penetration of liquid is defined as the amount or extent of penetration of liquid through (as distinguished from the amount, if any, absorbed by the container itself): (1) the sealed closure; (2) the seams of joints included in the structure of the container; (3) the body or walls of the container.

Frozen food pack up

The 1,125,000,000 lbs. of frozen foods packed in 1948 marked an increase of approximately 120,000,000 lbs. over the 1947 pack, Fred J. Becker, president of the National Assn. of Frozen Packers, told the third National Frozen Foods Convention and Exposition, held at Chicago last month. Fruits and vegetables accounted for 66% of all frozen foods packed, with totals of 375,000,000 and 370,000,000 lbs., respectively.

A new high in practical packaging! The Polysen makes polyethylene bags

The Polyseal* is an ingenious plastic-overwire folding closure which convertors can attach to their polyethylene bags. It makes them sure winners for packaging small hardware and findings, pipe tobacco, frozen foods and poultry, chemicals, cereals, and candies. When a Polyseal is welded to your polyethylene bag, it may be easily opened, and securely resealed when part of the contents have been consumed. In addition, once a polyethylene bag has been emptied, the Polyseal makes it

valuable for many other uses.

A gummed sticker can be used to make the Polyseal completely tamperproof. After the bag has been opened, it may be resealed by turning the Polyseal down two or three times and folding in the plastic "ears." Simple as that . . . it's resealed, moistureproof, airtight. The Polyseal is made to be attached to your flat or gusseted type polyethylene tubing. You can get widths to fit tubing of almost any size.

 * The name Polyseal is a trademark. The closure and its method of manufacture is patent pending.



ANCHOR PLASTICS CO. INC.

533-541 Canal Street,

New York, N. Y.



Convertors: Test Polyseals Yourself

We'd like to place sample Polyseals in your hands for examination and testing. Heat seal them to polyethylene bags and see how handy they are to use. The coupon will bring you a variety of sizes. Mail it now!

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Yes, we want to try Polysed Please rush samples right	als on the bags we fabricate. away.
Name	
Company	
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City	State

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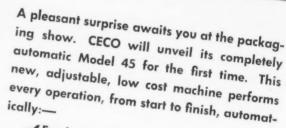
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FULLY AUTOMATIC PACKAGING

never before available at SUCH LOW COST



- ✓ Feeds and opens cartons,
- ✓ Inserts single or multiple products,
- ◆ Glue seals or tucks flaps,
- ◆ Delivers closed cartons to packing case.

With CECO Model 45, you can enjoy the economy of automatic packaging on short or long runs of widely different size products. The simplicity and adjustability of CECO Model 45 offer a marked contrast with complicated, inflexible automatic equipment costing many

The CECO exhibit in Booth 102 is a must for everyone concerned with packaging costs.



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Fine Quality and low cost combine to make TULOX Containers today's best buy in the field of transparent packaging.

Sales Appeal is another important TULOX feature as evidenced by the ever-increasing demand for TULOX-Packaged products.

Seamless Construction and crystal-clear transparency give undistorted visibility of product.

Maximum Protection of contents is assured through use of non-shatterable materials, with wall thicknesses to specification depending on weight and nature of product.

Low Cost has been achieved through use of highspeed processes based on mass production. TULOX Containers are, therefore, made to special order only on a volume basis.

TRANSPARENT CONTAINERS

Sizes and Styles range from 3/4" to 2" in diameter, with one end sealed or both ends open. Supplied complete with slip-on closures in a wide range of colors or clear-transparent.

Complete information furnished on request.

* Trade Mark registered U. S. Patent Office. TULOX Containers are manufactured under U. S. Patents No. 2,377,908, No. 2,383,520 and No. 2,423,260. Other patents pending.

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Plate, impression or special aniline rolls can be supplied promptly on order.

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Submit a sample of your present container and your quantity requirements.

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To you, this means cartons of superior strength and beauty . . . cartons sealed at the seam into one *solid* piece of clear, top-quality plastic. It's good-bye glue—and in its place a seam you can scarcely see. Crystoseel* is the scientifically controlled way to seal cartons. And it costs you no more.

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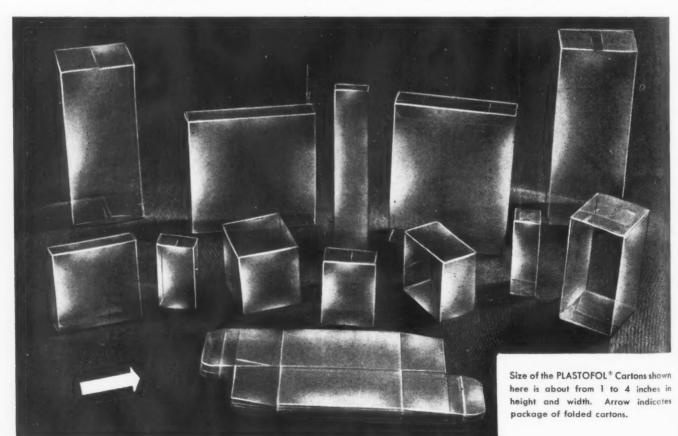
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LOOK AT THE VARIETY OF DESIGNS



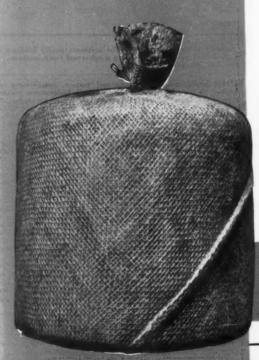
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by using Bemis TITE-FIT TUBING

This recent letter from a Tite-Fit Tubing customer shows what big savings are realized when this wasteeliminating method is used.

This versatile tubing fits almost any shape and a wide variety of package sizes. One roll may cover many different diameters and lengths without waste.

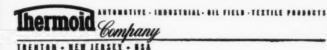


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Brooklyn 32, New York



Also manufactured by Canadian Bag Co., Ltd., Montreal, and Ontario Bag Company, Port Colborns, Ontario.



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Gentlemen:

We have used Tite-Fit Tubing since its inception over 10 years ago. Accurate time study figures show our savings in labor costs on regular packaging operations to be as high as 33% to 60%.

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Very truly yours,

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Perhaps you will find equally large savings with Tite-Fit Tubing, It's worth investigating. Get the facts, Mail the coupon now.

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- ☐ Send descriptive folder on TITE-FIT TUBING
- Send sample. Our packages are approximately _____inches in circumference. (Please specify).

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WANTED EXPERIENCED, Aggressive, High Type Representatives possessing contacts with large users of printed metal foil, paper and transparent film labels and wrappers, by outstanding Rotogravure manufacturer. No objection to noncompetitive lines. Exclusive territory. Excellent opportunity. Box 818, Modern Packaging.

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PLANT SUPERINTENDENT for long established middlewestern cellophane converter employing about 225 people. Permanent position and lifetime opportunity for the right man. Replies in confidence. Our staff knows of this ad. Box 820, Modern Packaging.

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SALESMEN WANTED—for all areas of the United States for complete line of polythene packaging products. Only top flight men capable of minimum volume \$100,000 yearly need apply. Write complete details. Your replies will be held confidential. Box 821, Modern Packaging.

Experienced Folding Carton Sample Maker. Excellent opportunity with large national manufacturer located in the East. Replies confidential. Box 822, Modern Packaging.

FOR SALE—One Corley-Miller cellophane wrapping machine—Model MPUS. Special 15-1/2" length capacity. Complete with sheeter, conveyor, electric eye. 110V.-60CY-S.P. Motor. Write Box 826, Modern Packaging.

FOR SALE. Jones Cartoning Machine for automatically folding liners around bottles and cartoning them using a reversed tuck carton. Used 18 months. Box 825, Modern Packaging.

WANTED: LINES pertaining to packaging; paper, containers equipment and supplies; to be sold to manufacturers, wholesalers, chain and department stores; also related lines that could be sold to these outlets in the New Orleans area. We have several years packaging experience, office, warehouse and art facilities available; financially responsible; will sell for your account or buy and re-sell. Box 828, Modern Packaging

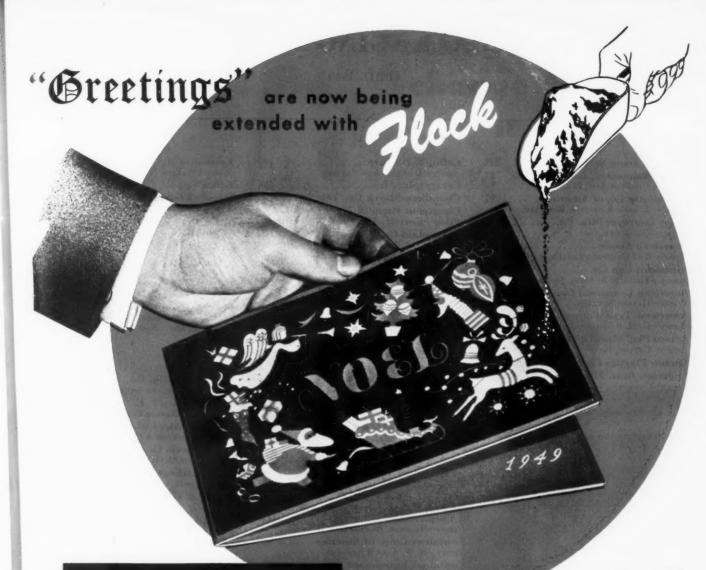
4-COLOR HENSCHEL Aniline Printing Press—Handles 32" width rolls and gives a 30" printing surface. Equipped with a Drying Tunnel, 4 Gray-Mills Electric ink pumps and 18 extra printing cylinders. Suitable for printing CELLOPHANE, Cellulose Acetate, Aluminum foil and similar flexible packaging materials. Also suitable for handling certain light grades of paperboard and wallpaper. Write Box 829, Modern Packaging.

DO YOU need a man in your organization who is now in an Executive Position for Buying Organization spending many millions per year. Responsible for Packing (Export & Domestie), Inspection (Sampling, Laboratory analysis and Comparison), Warehousing Control, Supervision of Inspection & Clerical Staff. College Civil Engineering Major, Married, Veteran. Desires connection with sound, ambitious concern. All replies held Strictly Confidential. Box 830, Modern Packaging.

WANTED—ENGINEER or chemist with extensive experience in packaging design and durability testing for Mid-west laboratory. Experience with transparent films and laminates necessary. Advise training-experience, age, and present salary. Reply Box 827, Modern Packaging.

FOR SALE—A Standard Knapp case sealer, type 429, with automatic top and bottom gluer with type 620 compression unit, complete with 550 Volt motors and dating device. A one ton Clark fork lift truck with new motor. A one ton Mobilift fork lift truck. A Roller Conveyor 2' wide—2 to 3 inches between rolls. A Roller conveyor 18" wide—2 to 3 inches between rolls. Power Paks. Canvas Belting, various sizes. HF 100 White Sylvania Fluorescent Units. Direct inquiries to Van Brode Milling Co., Inc., Clinton, Mass.

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Paper processors are capitalizing on Flock's quality to simulate rich fabrics at fractional cost. Claremont Flock (cotton, rayon or wool) responds perfectly to adhesive-prepared surfaces and forms a deep-pile foundation that won't separate, crack or fuzz off! Unexcelled for display draping, gift packaging, jewelry and candy boxes, etc. See your boxmaker, paper merchant or flock processor. New applications for Claremont Flock are popping fast!

Velvetone Finishing Corporation*
Brightens the Holiday Spirit with
CLAREMONT FLOCK

And so can all greeting card manufacturers! This novel, new medium in rich holiday colors, can be readily applied to paper surfaces—in either all-over effects or in spot designs. With printed or screened backgrounds prepared as reliefs, Flock adds a third dimension to otherwise flat surfaces—also a spark that adds personality to the greeting! Talk over Claremont Flock's possibilities with your designers—now—in time for '49's gold mine! We'll gladly supply samples, color charts and complete details for your guidance. Write today!

CLAREMONT

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buyers. The sparkling transparent box of Koppers Polystyrene displays candy at its best - and still protects it from the air.

When the candy has been eaten, a woman will find a dozen ways to re-use this handy box . . . on her vanity as a catch-all . . . in the medicine closet to hold bandages, adhesive tape and small items . . . or her husband can ese it for his fishing tackle.

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Modern packaging



A BRESKIN PUBLICATION

Published by Modern Packaging Corp. 122 East 42nd Street, New York 17, N. Y.



black and brown **BEETLE*** plastics

for lustrous, lower-cost closures and caps

Good news for the entire Drug and Cosmetics Industry!

Cyanamid is now producing new low-cost BEETLE molding compounds in both black and brown-excellent resins from every point of view . . . appearance, performance, cost and production. *Ideal* for caps and closures where a styled design is desirable.

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Yet their cost is exceptionally low!

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AT LOW COST PER UNIT

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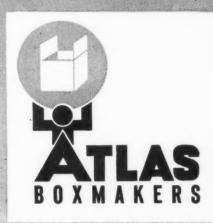
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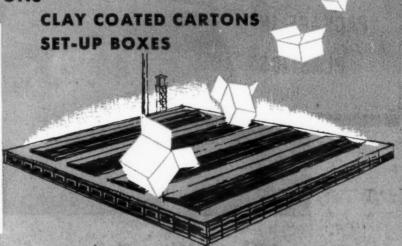
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FOLDING CARTONS





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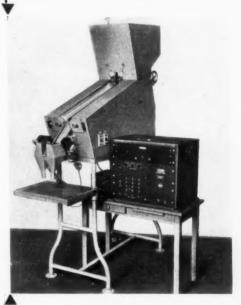
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"Package in Plastics" is Monsanto's new 24-page booklet chuck full of ideas on how to speed sales... increase profits... with plastic packages. Monsanto gathered packaging ideas from dozens of industries producing hundreds of different articles—showing how they use packages of Monsanto plastics to speed their sales... opaque

and crystal-clear boxes, cartons and cases; plastic tops, hinged lids and closures; re-use containers; fabricated packages of transparent Vuepak* and molded containers of durable Resinox* and colorful Lustrex*.

If you are not using plastics in packaging now, you will want a copy of this booklet immediately.

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Just clip the handy coupon below.

SEE MONSANTO EXHIBIT-NATIONAL PACKAGING SHOW-ATLANTIC CITY, MAY 10-13



MONSANTO CHEMICAL COMPANY, PLASTICS DIVISION Dept. MPKP14, Springfield 2, Mass.

Please send me your new booklet "Package in Plastics."

Name Title
Company
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ERVING INDUSTRY... WHICH SERVES MANKIND



Angel"

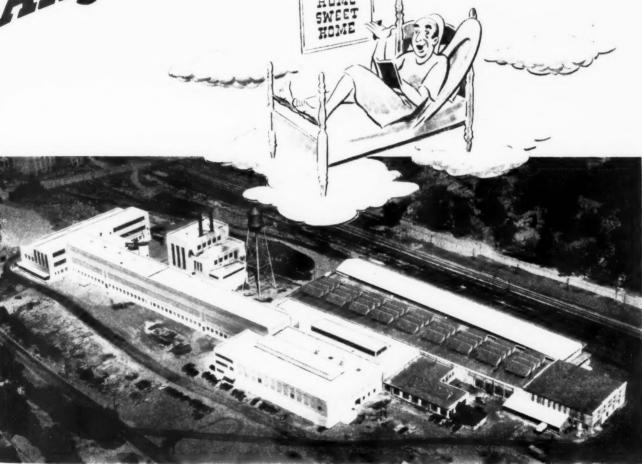
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YOU: "O.K., so you are housed in a style to which few paperboard machines are accustomed . . . does that help me sell more products?"

ANGEL: "Absolutely. My luxurious surroundings aren't just for looks...
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boxboard possible to make. The kind that gives you clean,
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ANGEL: "Your carton is the last link in the chain of elements that make for successful selling . . . a powerful 'point of sale' factor that makes or breaks the final sale. Let us show you how we can design and produce a 'hit' carton for your product."

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